LAMPIRAN A
LISTING PROGRAM

Algoritma TA.m

```matlab
function varargout = TA(varargin)
% TA M-file for TA.fig
%      TA, by itself, creates a new TA or raises the existing
%      singleton*.
%
%      H = TA returns the handle to a new TA or the handle to
%      the existing singleton*.
%
%      TA('CALLBACK',hObject,eventData,handles,...) calls the
local
%      function named CALLBACK in TA.M with the given input
arguments.
%
%      TA('Property','Value',...) creates a new TA or raises the
%      existing singleton*.  Starting from the left, property
value pairs are
%      applied to the GUI before TA_OpeningFunction gets called.
An
%      unrecognized property name or invalid value makes property
application
%      stop.  All inputs are passed to TA_OpeningFcn via varargin.
%
%      *See GUI Options on GUIDE's Tools menu.  Choose "GUI allows
only one
%      instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help TA

% Last Modified by GUIDE v2.5 29-Jan-2008 23:22:01

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                   'gui_Singleton',  gui_Singleton, ...
                   'gui_OpeningFcn', @TA_OpeningFcn, ...
                   'gui_OutputFcn',  @TA_OutputFcn, ...
                   'gui_LayoutFcn',  [] , ...
                   'gui_Callback',   []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end

if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT


% --- Executes just before TA is made visible.
function TA_OpeningFcn(hObject, eventdata, handles, varargin)
```

```matlab
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to TA (see VARARGIN)

% Choose default command line output for TA
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes TA wait for user response (see UIRESUME)
% uiwait(handles.figure1);


% --- Outputs from this function are returned to the command line.
function varargout = TA_OutputFcn(hObject, eventdata, handles)
% varargout  cell array for returning output args (see VARARGOUT);
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;


% --- Executes on button press in btnbukagbr.
function btnbukagbr_Callback(hObject, eventdata, handles)
% hObject    handle to btnbukagbr (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

proyek=guidata(gcbo);
[namafile,direktori]=uigetfile({'*.bmp'},'Buka Gambar');
I=imread(namafile);
set(proyek.figTA,'currentaxes',proyek.gbr);
set(imshow(I));
set(proyek.gbr,'userdata',I);


% --- Executes on button press in btnkenali.
function btnkenali_Callback(hObject, eventdata, handles)
% hObject    handle to btnkenali (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
```

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```
image1=imread('a1.bmp');image2=imread('a2.bmp');
image3=imread('a3.bmp');image4=imread('a4.bmp');
image5=imread('a5.bmp');image6=imread('a6.bmp');
image7=imread('a7.bmp');image8=imread('a8.bmp');
image9=imread('a9.bmp');image10=imread('a10.bmp');
image11=imread('b1.bmp');image12=imread('b2.bmp');
image13=imread('b3.bmp');image14=imread('b4.bmp');
image15=imread('b5.bmp');image16=imread('b6.bmp');
image17=imread('b7.bmp');image18=imread('b8.bmp');
image19=imread('b9.bmp');image20=imread('b10.bmp');
image21=imread('c1.bmp');image22=imread('c2.bmp');
image23=imread('c3.bmp');image24=imread('c4.bmp');
image25=imread('c5.bmp');image26=imread('c6.bmp');
image27=imread('c7.bmp');image28=imread('c8.bmp');
image29=imread('c9.bmp');image30=imread('c10.bmp');
image31=imread('d1.bmp');image32=imread('d2.bmp');
image33=imread('d3.bmp');image34=imread('d4.bmp');
image35=imread('d5.bmp');image36=imread('d6.bmp');
image37=imread('d7.bmp');image38=imread('d8.bmp');
image39=imread('d9.bmp');image40=imread('d10.bmp');
image41=imread('e1.bmp');image42=imread('e2.bmp');
image43=imread('e3.bmp');image44=imread('e4.bmp');
image45=imread('e5.bmp');image46=imread('e6.bmp');
image47=imread('e7.bmp');image48=imread('e8.bmp');
image49=imread('e9.bmp');image50=imread('e10.bmp');
image51=imread('f1.bmp');image52=imread('f2.bmp');
image53=imread('f3.bmp');image54=imread('f4.bmp');
image55=imread('f5.bmp');image56=imread('f6.bmp');
image57=imread('f7.bmp');image58=imread('f8.bmp');
image59=imread('f9.bmp');image60=imread('f10.bmp');
image61=imread('g1.bmp');image62=imread('g2.bmp');
image63=imread('g3.bmp');image64=imread('g4.bmp');
image65=imread('g5.bmp');image66=imread('g6.bmp');
image67=imread('g7.bmp');image68=imread('g8.bmp');
image69=imread('g9.bmp');image70=imread('g10.bmp');
image71=imread('h1.bmp');image72=imread('h2.bmp');
image73=imread('h3.bmp');image74=imread('h4.bmp');
image75=imread('h5.bmp');image76=imread('h6.bmp');
image77=imread('h7.bmp');image78=imread('h8.bmp');
image79=imread('h9.bmp');image80=imread('h10.bmp');
image81=imread('i1.bmp');image82=imread('i2.bmp');
image83=imread('i3.bmp');image84=imread('i4.bmp');
image85=imread('i5.bmp');image86=imread('i6.bmp');
image87=imread('i7.bmp');image88=imread('i8.bmp');
image89=imread('i9.bmp');image90=imread('i10.bmp');
image91=imread('j1.bmp');image92=imread('j2.bmp');
image93=imread('j3.bmp');image94=imread('j4.bmp');
image95=imread('j5.bmp');image96=imread('j6.bmp');
image97=imread('j7.bmp');image98=imread('j8.bmp');
image99=imread('j9.bmp');image100=imread('j10.bmp');
image101=imread('k1.bmp');image102=imread('k2.bmp');
image103=imread('k3.bmp');image104=imread('k4.bmp');
image105=imread('k5.bmp');image106=imread('k6.bmp');
image107=imread('k7.bmp');image108=imread('k8.bmp');
image109=imread('k9.bmp');image110=imread('k10.bmp');
image111=imread('l1.bmp');image112=imread('l2.bmp');
image113=imread('l3.bmp');image114=imread('l4.bmp');
image115=imread('l5.bmp');image116=imread('l6.bmp');
```

```matlab
image117=imread('l7.bmp');image118=imread('l8.bmp');
image119=imread('l9.bmp');image120=imread('l10.bmp');
image121=imread('m1.bmp');image122=imread('m2.bmp');
image123=imread('m3.bmp');image124=imread('m4.bmp');
image125=imread('m5.bmp');image126=imread('m6.bmp');
image127=imread('m7.bmp');image128=imread('m8.bmp');
image129=imread('m9.bmp');image130=imread('m10.bmp');
image131=imread('n1.bmp');image132=imread('n2.bmp');
image133=imread('n3.bmp');image134=imread('n4.bmp');
image135=imread('n5.bmp');image136=imread('n6.bmp');
image137=imread('n7.bmp');image138=imread('n8.bmp');
image139=imread('n9.bmp');image140=imread('n10.bmp');
image141=imread('o1.bmp');image142=imread('o2.bmp');
image143=imread('o3.bmp');image144=imread('o4.bmp');
image145=imread('o5.bmp');image146=imread('o6.bmp');
image147=imread('o7.bmp');image148=imread('o8.bmp');
image149=imread('o9.bmp');image150=imread('o10.bmp');
image151=imread('p1.bmp');image152=imread('p2.bmp');
image153=imread('p3.bmp');image154=imread('p4.bmp');
image155=imread('p5.bmp');image156=imread('p6.bmp');
image157=imread('p7.bmp');image158=imread('p8.bmp');
image159=imread('p9.bmp');image160=imread('p10.bmp');
image161=imread('q1.bmp');image162=imread('q2.bmp');
image163=imread('q3.bmp');image164=imread('q4.bmp');
image165=imread('q5.bmp');image166=imread('q6.bmp');
image167=imread('q7.bmp');image168=imread('q8.bmp');
image169=imread('q9.bmp');image170=imread('q10.bmp');
image171=imread('r1.bmp');image172=imread('r2.bmp');
image173=imread('r3.bmp');image174=imread('r4.bmp');
image175=imread('r5.bmp');image176=imread('r6.bmp');
image177=imread('r7.bmp');image178=imread('r8.bmp');
image179=imread('r9.bmp');image180=imread('r10.bmp');
image181=imread('s1.bmp');image182=imread('s2.bmp');
image183=imread('s3.bmp');image184=imread('s4.bmp');
image185=imread('s5.bmp');image186=imread('s6.bmp');
image187=imread('s7.bmp');image188=imread('s8.bmp');
image189=imread('s9.bmp');image190=imread('s10.bmp');
image191=imread('t1.bmp');image192=imread('t2.bmp');
image193=imread('t3.bmp');image194=imread('t4.bmp');
image195=imread('t5.bmp');image196=imread('t6.bmp');
image197=imread('t7.bmp');image198=imread('t8.bmp');
image199=imread('t9.bmp');image200=imread('t10.bmp');
image201=imread('u1.bmp');image202=imread('u2.bmp');
image203=imread('u3.bmp');image204=imread('u4.bmp');
image205=imread('u5.bmp');image206=imread('u6.bmp');
image207=imread('u7.bmp');image208=imread('u8.bmp');
image209=imread('u9.bmp');image210=imread('u10.bmp');
image211=imread('v1.bmp');image212=imread('v2.bmp');
image213=imread('v3.bmp');image214=imread('v4.bmp');
image215=imread('v5.bmp');image216=imread('v6.bmp');
image217=imread('v7.bmp');image218=imread('v8.bmp');
image219=imread('v9.bmp');image220=imread('v10.bmp');
image221=imread('w1.bmp');image222=imread('w2.bmp');
image223=imread('w3.bmp');image224=imread('w4.bmp');
image225=imread('w5.bmp');image226=imread('w6.bmp');
image227=imread('w7.bmp');image228=imread('w8.bmp');
image229=imread('w9.bmp');image230=imread('w10.bmp');
image231=imread('x1.bmp');image232=imread('x2.bmp');
```

```matlab
image233=imread('x3.bmp');image234=imread('x4.bmp');
image235=imread('x5.bmp');image236=imread('x6.bmp');
image237=imread('x7.bmp');image238=imread('x8.bmp');
image239=imread('x9.bmp');image240=imread('x10.bmp');
image241=imread('y1.bmp');image242=imread('y2.bmp');
image243=imread('y3.bmp');image244=imread('y4.bmp');
image245=imread('y5.bmp');image246=imread('y6.bmp');
image247=imread('y7.bmp');image248=imread('y8.bmp');
image249=imread('y9.bmp');image250=imread('y10.bmp');
image251=imread('z1.bmp');image252=imread('z2.bmp');
image253=imread('z3.bmp');image254=imread('z4.bmp');
image255=imread('z5.bmp');image256=imread('z6.bmp');
image257=imread('z7.bmp');image258=imread('z8.bmp');
image259=imread('z9.bmp');image260=imread('z10.bmp');

%Database huruf-huruf
a1=image1(1:20,1:20);    a1=reshape(a1,1,400);    a1=single(a1);
a2=image2(1:20,1:20);    a2=reshape(a2,1,400);    a2=single(a2);
a3=image3(1:20,1:20);    a3=reshape(a3,1,400);    a3=single(a3);
a4=image4(1:20,1:20);    a4=reshape(a4,1,400);    a4=single(a4);
a5=image5(1:20,1:20);    a5=reshape(a5,1,400);    a5=single(a5);
a6=image6(1:20,1:20);    a6=reshape(a6,1,400);    a6=single(a6);
a7=image7(1:20,1:20);    a7=reshape(a7,1,400);    a7=single(a7);
a8=image8(1:20,1:20);    a8=reshape(a8,1,400);    a8=single(a8);
a9=image9(1:20,1:20);    a9=reshape(a9,1,400);    a9=single(a9);
a10=image10(1:20,1:20); a10=reshape(a10,1,400); a10=single(a10);
b1=image11(1:20,1:20);  b1=reshape(b1,1,400);  b1=single(b1);
b2=image12(1:20,1:20);  b2=reshape(b2,1,400);  b2=single(b2);
b3=image13(1:20,1:20);  b3=reshape(b3,1,400);  b3=single(b3);
b4=image14(1:20,1:20);  b4=reshape(b4,1,400);  b4=single(b4);
b5=image15(1:20,1:20);  b5=reshape(b5,1,400);  b5=single(b5);
b6=image16(1:20,1:20);  b6=reshape(b6,1,400);  b6=single(b6);
b7=image17(1:20,1:20);  b7=reshape(b7,1,400);  b7=single(b7);
b8=image18(1:20,1:20);  b8=reshape(b8,1,400);  b8=single(b8);
b9=image19(1:20,1:20);  b9=reshape(b9,1,400);  b9=single(b9);
b10=image20(1:20,1:20); b10=reshape(b10,1,400); b10=single(b10);
c1=image21(1:20,1:20);  c1=reshape(c1,1,400);  c1=single(c1);
c2=image22(1:20,1:20);  c2=reshape(c2,1,400);  c2=single(c2);
c3=image23(1:20,1:20);  c3=reshape(c3,1,400);  c3=single(c3);
c4=image24(1:20,1:20);  c4=reshape(c4,1,400);  c4=single(c4);
c5=image25(1:20,1:20);  c5=reshape(c5,1,400);  c5=single(c5);
c6=image26(1:20,1:20);  c6=reshape(c6,1,400);  c6=single(c6);
c7=image27(1:20,1:20);  c7=reshape(c7,1,400);  c7=single(c7);
c8=image28(1:20,1:20);  c8=reshape(c8,1,400);  c8=single(c8);
c9=image29(1:20,1:20);  c9=reshape(c9,1,400);  c9=single(c9);
c10=image30(1:20,1:20); c10=reshape(c10,1,400); c10=single(c10);
d1=image31(1:20,1:20);  d1=reshape(d1,1,400);  d1=single(d1);
d2=image32(1:20,1:20);  d2=reshape(d2,1,400);  d2=single(d2);
d3=image33(1:20,1:20);  d3=reshape(d3,1,400);  d3=single(d3);
d4=image34(1:20,1:20);  d4=reshape(d4,1,400);  d4=single(d4);
d5=image35(1:20,1:20);  d5=reshape(d5,1,400);  d5=single(d5);
d6=image36(1:20,1:20);  d6=reshape(d6,1,400);  d6=single(d6);
d7=image37(1:20,1:20);  d7=reshape(d7,1,400);  d7=single(d7);
d8=image38(1:20,1:20);  d8=reshape(d8,1,400);  d8=single(d8);
d9=image39(1:20,1:20);  d9=reshape(d9,1,400);  d9=single(d9);
d10=image40(1:20,1:20); d10=reshape(d10,1,400); d10=single(d10);
e1=image41(1:20,1:20);  e1=reshape(e1,1,400);   e1=single(e1);
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```
e2=image42(1:20,1:20);   e2=reshape(e2,1,400);    e2=single(e2);
e3=image43(1:20,1:20);   e3=reshape(e3,1,400);    e3=single(e3);
e4=image44(1:20,1:20);   e4=reshape(e4,1,400);    e4=single(e4);
e5=image45(1:20,1:20);   e5=reshape(e5,1,400);    e5=single(e5);
e6=image46(1:20,1:20);   e6=reshape(e6,1,400);    e6=single(e6);
e7=image47(1:20,1:20);   e7=reshape(e7,1,400);    e7=single(e7);
e8=image48(1:20,1:20);   e8=reshape(e8,1,400);    e8=single(e8);
e9=image49(1:20,1:20);   e9=reshape(e9,1,400);    e9=single(e9);
e10=image50(1:20,1:20); e10=reshape(e10,1,400); e10=single(e10);
f1=image51(1:20,1:20);   f1=reshape(f1,1,400);    f1=single(f1);
f2=image52(1:20,1:20);   f2=reshape(f2,1,400);    f2=single(f2);
f3=image53(1:20,1:20);   f3=reshape(f3,1,400);    f3=single(f3);
f4=image54(1:20,1:20);   f4=reshape(f4,1,400);    f4=single(f4);
f5=image55(1:20,1:20);   f5=reshape(f5,1,400);    f5=single(f5);
f6=image56(1:20,1:20);   f6=reshape(f6,1,400);    f6=single(f6);
f7=image57(1:20,1:20);   f7=reshape(f7,1,400);    f7=single(f7);
f8=image58(1:20,1:20);   f8=reshape(f8,1,400);    f8=single(f8);
f9=image59(1:20,1:20);   f9=reshape(f9,1,400);    f9=single(f9);
f10=image60(1:20,1:20); f10=reshape(f10,1,400); f10=single(f10);
g1=image61(1:20,1:20);   g1=reshape(g1,1,400);    g1=single(g1);
g2=image62(1:20,1:20);   g2=reshape(g2,1,400);    g2=single(g2);
g3=image63(1:20,1:20);   g3=reshape(g3,1,400);    g3=single(g3);
g4=image64(1:20,1:20);   g4=reshape(g4,1,400);    g4=single(g4);
g5=image65(1:20,1:20);   g5=reshape(g5,1,400);    g5=single(g5);
g6=image66(1:20,1:20);   g6=reshape(g6,1,400);    g6=single(g6);
g7=image67(1:20,1:20);   g7=reshape(g7,1,400);    g7=single(g7);
g8=image68(1:20,1:20);   g8=reshape(g8,1,400);    g8=single(g8);
g9=image69(1:20,1:20);   g9=reshape(g9,1,400);    g9=single(g9);
g10=image70(1:20,1:20); g10=reshape(g10,1,400); g10=single(g10);
h1=image71(1:20,1:20);   h1=reshape(h1,1,400);    h1=single(h1);
h2=image72(1:20,1:20);   h2=reshape(h2,1,400);    h2=single(h2);
h3=image73(1:20,1:20);   h3=reshape(h3,1,400);    h3=single(h3);
h4=image74(1:20,1:20);   h4=reshape(h4,1,400);    h4=single(h4);
h5=image75(1:20,1:20);   h5=reshape(h5,1,400);    h5=single(h5);
h6=image76(1:20,1:20);   h6=reshape(h6,1,400);    h6=single(h6);
h7=image77(1:20,1:20);   h7=reshape(h7,1,400);    h7=single(h7);
h8=image78(1:20,1:20);   h8=reshape(h8,1,400);    h8=single(h8);
h9=image79(1:20,1:20);   h9=reshape(h9,1,400);    h9=single(h9);
h10=image80(1:20,1:20); h10=reshape(h10,1,400); h10=single(h10);
i1=image81(1:20,1:20);   i1=reshape(i1,1,400);    i1=single(i1);
i2=image82(1:20,1:20);   i2=reshape(i2,1,400);    i2=single(i2);
i3=image83(1:20,1:20);   i3=reshape(i3,1,400);    i3=single(i3);
i4=image84(1:20,1:20);   i4=reshape(i4,1,400);    i4=single(i4);
i5=image85(1:20,1:20);   i5=reshape(i5,1,400);    i5=single(i5);
i6=image86(1:20,1:20);   i6=reshape(i6,1,400);    i6=single(i6);
i7=image87(1:20,1:20);   i7=reshape(i7,1,400);    i7=single(i7);
i8=image88(1:20,1:20);   i8=reshape(i8,1,400);    i8=single(i8);
i9=image89(1:20,1:20);   i9=reshape(i9,1,400);    i9=single(i9);
i10=image90(1:20,1:20); i10=reshape(i10,1,400); i10=single(i10);
j1=image91(1:20,1:20);   j1=reshape(j1,1,400);    j1=single(j1);
j2=image92(1:20,1:20);   j2=reshape(j2,1,400);    j2=single(j2);
j3=image93(1:20,1:20);   j3=reshape(j3,1,400);    j3=single(j3);
j4=image94(1:20,1:20);   j4=reshape(j4,1,400);    j4=single(j4);
j5=image95(1:20,1:20);   j5=reshape(j5,1,400);    j5=single(j5);
j6=image96(1:20,1:20);   j6=reshape(j6,1,400);    j6=single(j6);
j7=image97(1:20,1:20);   j7=reshape(j7,1,400);    j7=single(j7);
j8=image98(1:20,1:20);   j8=reshape(j8,1,400);    j8=single(j8);
j9=image99(1:20,1:20);   j9=reshape(j9,1,400);    j9=single(j9);
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j10=image100(1:20,1:20);j10=reshape(j10,1,400);  j10=single(j10);
k1=image101(1:20,1:20); k1=reshape(k1,1,400);    k1=single(k1);
k2=image102(1:20,1:20); k2=reshape(k2,1,400);    k2=single(k2);
k3=image103(1:20,1:20); k3=reshape(k3,1,400);    k3=single(k3);
k4=image104(1:20,1:20); k4=reshape(k4,1,400);    k4=single(k4);
k5=image105(1:20,1:20); k5=reshape(k5,1,400);    k5=single(k5);
k6=image106(1:20,1:20); k6=reshape(k6,1,400);    k6=single(k6);
k7=image107(1:20,1:20); k7=reshape(k7,1,400);    k7=single(k7);
k8=image108(1:20,1:20); k8=reshape(k8,1,400);    k8=single(k8);
k9=image109(1:20,1:20); k9=reshape(k9,1,400);    k9=single(k9);
k10=image110(1:20,1:20);k10=reshape(k10,1,400); k10=single(k10);
l1=image111(1:20,1:20); l1=reshape(l1,1,400);    l1=single(l1);
l2=image112(1:20,1:20); l2=reshape(l2,1,400);    l2=single(l2);
l3=image113(1:20,1:20); l3=reshape(l3,1,400);    l3=single(l3);
l4=image114(1:20,1:20); l4=reshape(l4,1,400);    l4=single(l4);
l5=image115(1:20,1:20); l5=reshape(l5,1,400);    l5=single(l5);
l6=image116(1:20,1:20); l6=reshape(l6,1,400);    l6=single(l6);
l7=image117(1:20,1:20); l7=reshape(l7,1,400);    l7=single(l7);
l8=image118(1:20,1:20); l8=reshape(l8,1,400);    l8=single(l8);
l9=image119(1:20,1:20); l9=reshape(l9,1,400);    l9=single(l9);
l10=image120(1:20,1:20);l10=reshape(l10,1,400); l10=single(l10);
m1=image121(1:20,1:20); m1=reshape(m1,1,400);    m1=single(m1);
m2=image122(1:20,1:20); m2=reshape(m2,1,400);    m2=single(m2);
m3=image123(1:20,1:20); m3=reshape(m3,1,400);    m3=single(m3);
m4=image124(1:20,1:20); m4=reshape(m4,1,400);    m4=single(m4);
m5=image125(1:20,1:20); m5=reshape(m5,1,400);    m5=single(m5);
m6=image126(1:20,1:20); m6=reshape(m6,1,400);    m6=single(m6);
m7=image127(1:20,1:20); m7=reshape(m7,1,400);    m7=single(m7);
m8=image128(1:20,1:20); m8=reshape(m8,1,400);    m8=single(m8);
m9=image129(1:20,1:20); m9=reshape(m9,1,400);    m9=single(m9);
m10=image130(1:20,1:20);m10=reshape(m10,1,400); m10=single(m10);
n1=image131(1:20,1:20); n1=reshape(n1,1,400);    n1=single(n1);
n2=image132(1:20,1:20); n2=reshape(n2,1,400);    n2=single(n2);
n3=image133(1:20,1:20); n3=reshape(n3,1,400);    n3=single(n3);
n4=image134(1:20,1:20); n4=reshape(n4,1,400);    n4=single(n4);
n5=image135(1:20,1:20); n5=reshape(n5,1,400);    n5=single(n5);
n6=image136(1:20,1:20); n6=reshape(n6,1,400);    n6=single(n6);
n7=image137(1:20,1:20); n7=reshape(n7,1,400);    n7=single(n7);
n8=image138(1:20,1:20); n8=reshape(n8,1,400);    n8=single(n8);
n9=image139(1:20,1:20); n9=reshape(n9,1,400);    n9=single(n9);
n10=image140(1:20,1:20);n10=reshape(n10,1,400); n10=single(n10);
o1=image141(1:20,1:20); o1=reshape(o1,1,400);    o1=single(o1);
o2=image142(1:20,1:20); o2=reshape(o2,1,400);    o2=single(o2);
o3=image143(1:20,1:20); o3=reshape(o3,1,400);    o3=single(o3);
o4=image144(1:20,1:20); o4=reshape(o4,1,400);    o4=single(o4);
o5=image145(1:20,1:20); o5=reshape(o5,1,400);    o5=single(o5);
o6=image146(1:20,1:20); o6=reshape(o6,1,400);    o6=single(o6);
o7=image147(1:20,1:20); o7=reshape(o7,1,400);    o7=single(o7);
o8=image148(1:20,1:20); o8=reshape(o8,1,400);    o8=single(o8);
o9=image149(1:20,1:20); o9=reshape(o9,1,400);    o9=single(o9);
o10=image150(1:20,1:20);o10=reshape(o10,1,400); o10=single(o10);
p1=image151(1:20,1:20); p1=reshape(p1,1,400);    p1=single(p1);
p2=image152(1:20,1:20); p2=reshape(p2,1,400);    p2=single(p2);
p3=image153(1:20,1:20); p3=reshape(p3,1,400);    p3=single(p3);
p4=image154(1:20,1:20); p4=reshape(p4,1,400);    p4=single(p4);
p5=image155(1:20,1:20); p5=reshape(p5,1,400);    p5=single(p5);
p6=image156(1:20,1:20); p6=reshape(p6,1,400);    p6=single(p6);
p7=image157(1:20,1:20); p7=reshape(p7,1,400);    p7=single(p7);
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p8=image158(1:20,1:20); p8=reshape(p8,1,400);   p8=single(p8);
p9=image159(1:20,1:20); p9=reshape(p9,1,400);   p9=single(p9);
p10=image160(1:20,1:20);p10=reshape(p10,1,400); p10=single(p10);
q1=image161(1:20,1:20); q1=reshape(q1,1,400);   q1=single(q1);
q2=image162(1:20,1:20); q2=reshape(q2,1,400);   q2=single(q2);
q3=image163(1:20,1:20); q3=reshape(q3,1,400);   q3=single(q3);
q4=image164(1:20,1:20); q4=reshape(q4,1,400);   q4=single(q4);
q5=image165(1:20,1:20); q5=reshape(q5,1,400);   q5=single(q5);
q6=image166(1:20,1:20); q6=reshape(q6,1,400);   q6=single(q6);
q7=image167(1:20,1:20); q7=reshape(q7,1,400);   q7=single(q7);
q8=image168(1:20,1:20); q8=reshape(q8,1,400);   q8=single(q8);
q9=image169(1:20,1:20); q9=reshape(q9,1,400);   q9=single(q9);
q10=image170(1:20,1:20);q10=reshape(q10,1,400); q10=single(q10);
r1=image171(1:20,1:20); r1=reshape(r1,1,400);   r1=single(r1);
r2=image172(1:20,1:20); r2=reshape(r2,1,400);   r2=single(r2);
r3=image173(1:20,1:20); r3=reshape(r3,1,400);   r3=single(r3);
r4=image174(1:20,1:20); r4=reshape(r4,1,400);   r4=single(r4);
r5=image175(1:20,1:20); r5=reshape(r5,1,400);   r5=single(r5);
r6=image176(1:20,1:20); r6=reshape(r6,1,400);   r6=single(r6);
r7=image177(1:20,1:20); r7=reshape(r7,1,400);   r7=single(r7);
r8=image178(1:20,1:20); r8=reshape(r8,1,400);   r8=single(r8);
r9=image179(1:20,1:20); r9=reshape(r9,1,400);   r9=single(r9);
r10=image180(1:20,1:20);r10=reshape(r10,1,400); r10=single(r10);
s1=image181(1:20,1:20); s1=reshape(s1,1,400);   s1=single(s1);
s2=image182(1:20,1:20); s2=reshape(s2,1,400);   s2=single(s2);
s3=image183(1:20,1:20); s3=reshape(s3,1,400);   s3=single(s3);
s4=image184(1:20,1:20); s4=reshape(s4,1,400);   s4=single(s4);
s5=image185(1:20,1:20); s5=reshape(s5,1,400);   s5=single(s5);
s6=image186(1:20,1:20); s6=reshape(s6,1,400);   s6=single(s6);
s7=image187(1:20,1:20); s7=reshape(s7,1,400);   s7=single(s7);
s8=image188(1:20,1:20); s8=reshape(s8,1,400);   s8=single(s8);
s9=image189(1:20,1:20); s9=reshape(s9,1,400);   s9=single(s9);
s10=image190(1:20,1:20);s10=reshape(s10,1,400); s10=single(s10);
t1=image191(1:20,1:20); t1=reshape(t1,1,400);   t1=single(t1);
t2=image192(1:20,1:20); t2=reshape(t2,1,400);   t2=single(t2);
t3=image193(1:20,1:20); t3=reshape(t3,1,400);   t3=single(t3);
t4=image194(1:20,1:20); t4=reshape(t4,1,400);   t4=single(t4);
t5=image195(1:20,1:20); t5=reshape(t5,1,400);   t5=single(t5);
t6=image196(1:20,1:20); t6=reshape(t6,1,400);   t6=single(t6);
t7=image197(1:20,1:20); t7=reshape(t7,1,400);   t7=single(t7);
t8=image198(1:20,1:20); t8=reshape(t8,1,400);   t8=single(t8);
t9=image199(1:20,1:20); t9=reshape(t9,1,400);   t9=single(t9);
t10=image200(1:20,1:20);t10=reshape(t10,1,400); t10=single(t10);
u1=image201(1:20,1:20); u1=reshape(u1,1,400);   u1=single(u1);
u2=image202(1:20,1:20); u2=reshape(u2,1,400);   u2=single(u2);
u3=image203(1:20,1:20); u3=reshape(u3,1,400);   u3=single(u3);
u4=image204(1:20,1:20); u4=reshape(u4,1,400);   u4=single(u4);
u5=image205(1:20,1:20); u5=reshape(u5,1,400);   u5=single(u5);
u6=image206(1:20,1:20); u6=reshape(u6,1,400);   u6=single(u6);
u7=image207(1:20,1:20); u7=reshape(u7,1,400);   u7=single(u7);
u8=image208(1:20,1:20); u8=reshape(u8,1,400);   u8=single(u8);
u9=image209(1:20,1:20); u9=reshape(u9,1,400);   u9=single(u9);
u10=image210(1:20,1:20);u10=reshape(u10,1,400); u10=single(u10);
v1=image211(1:20,1:20); v1=reshape(v1,1,400);   v1=single(v1);
v2=image212(1:20,1:20); v2=reshape(v2,1,400);   v2=single(v2);
v3=image213(1:20,1:20); v3=reshape(v3,1,400);   v3=single(v3);
v4=image214(1:20,1:20); v4=reshape(v4,1,400);   v4=single(v4);
v5=image215(1:20,1:20); v5=reshape(v5,1,400);   v5=single(v5);
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v6=image216(1:20,1:20); v6=reshape(v6,1,400);    v6=single(v6);
v7=image217(1:20,1:20); v7=reshape(v7,1,400);    v7=single(v7);
v8=image218(1:20,1:20); v8=reshape(v8,1,400);    v8=single(v8);
v9=image219(1:20,1:20); v9=reshape(v9,1,400);    v9=single(v9);
v10=image220(1:20,1:20);v10=reshape(v10,1,400); v10=single(v10);
w1=image221(1:20,1:20); w1=reshape(w1,1,400);    w1=single(w1);
w2=image222(1:20,1:20); w2=reshape(w2,1,400);    w2=single(w2);
w3=image223(1:20,1:20); w3=reshape(w3,1,400);    w3=single(w3);
w4=image224(1:20,1:20); w4=reshape(w4,1,400);    w4=single(w4);
w5=image225(1:20,1:20); w5=reshape(w5,1,400);    w5=single(w5);
w6=image226(1:20,1:20); w6=reshape(w6,1,400);    w6=single(w6);
w7=image227(1:20,1:20); w7=reshape(w7,1,400);    w7=single(w7);
w8=image228(1:20,1:20); w8=reshape(w8,1,400);    w8=single(w8);
w9=image229(1:20,1:20); w9=reshape(w9,1,400);    w9=single(w9);
w10=image230(1:20,1:20);w10=reshape(w10,1,400); w10=single(w10);
x1=image231(1:20,1:20); x1=reshape(x1,1,400);    x1=single(x1);
x2=image232(1:20,1:20); x2=reshape(x2,1,400);    x2=single(x2);
x3=image233(1:20,1:20); x3=reshape(x3,1,400);    x3=single(x3);
x4=image234(1:20,1:20); x4=reshape(x4,1,400);    x4=single(x4);
x5=image235(1:20,1:20); x5=reshape(x5,1,400);    x5=single(x5);
x6=image236(1:20,1:20); x6=reshape(x6,1,400);    x6=single(x6);
x7=image237(1:20,1:20); x7=reshape(x7,1,400);    x7=single(x7);
x8=image238(1:20,1:20); x8=reshape(x8,1,400);    x8=single(x8);
x9=image239(1:20,1:20); x9=reshape(x9,1,400);    x9=single(x9);
x10=image240(1:20,1:20);x10=reshape(x10,1,400); x10=single(x10);
y1=image241(1:20,1:20); y1=reshape(y1,1,400);    y1=single(y1);
y2=image242(1:20,1:20); y2=reshape(y2,1,400);    y2=single(y2);
y3=image243(1:20,1:20); y3=reshape(y3,1,400);    y3=single(y3);
y4=image244(1:20,1:20); y4=reshape(y4,1,400);    y4=single(y4);
y5=image245(1:20,1:20); y5=reshape(y5,1,400);    y5=single(y5);
y6=image246(1:20,1:20); y6=reshape(y6,1,400);    y6=single(y6);
y7=image247(1:20,1:20); y7=reshape(y7,1,400);    y7=single(y7);
y8=image248(1:20,1:20); y8=reshape(y8,1,400);    y8=single(y8);
y9=image249(1:20,1:20); y9=reshape(y9,1,400);    y9=single(y9);
y10=image250(1:20,1:20);y10=reshape(y10,1,400); y10=single(y10);
z1=image251(1:20,1:20); z1=reshape(z1,1,400);    z1=single(z1);
z2=image252(1:20,1:20); z2=reshape(z2,1,400);    z2=single(z2);
z3=image253(1:20,1:20); z3=reshape(z3,1,400);    z3=single(z3);
z4=image254(1:20,1:20); z4=reshape(z4,1,400);    z4=single(z4);
z5=image255(1:20,1:20); z5=reshape(z5,1,400);    z5=single(z5);
z6=image256(1:20,1:20); z6=reshape(z6,1,400);    z6=single(z6);
z7=image257(1:20,1:20); z7=reshape(z7,1,400);    z7=single(z7);
z8=image258(1:20,1:20); z8=reshape(z8,1,400);    z8=single(z8);
z9=image259(1:20,1:20); z9=reshape(z9,1,400);    z9=single(z9);
z10=image260(1:20,1:20);z10=reshape(z10,1,400); z10=single(z10);
x(1,1:400)=a1;x(2,1:400)=a2;x(3,1:400)=a3;x(4,1:400)=a4;
x(5,1:400)=a5;x(6,1:400)=a6;x(7,1:400)=a7;x(8,1:400)=a8;
x(9,1:400)=a9;x(10,1:400)=a10;x(11,1:400)=b1;x(12,1:400)=b2;
x(13,1:400)=b3;x(14,1:400)=b4;x(15,1:400)=b5;x(16,1:400)=b6;
x(17,1:400)=b7;x(18,1:400)=b8;x(19,1:400)=b9;x(20,1:400)=b10;
x(21,1:400)=c1;x(22,1:400)=c2;x(23,1:400)=c3;x(24,1:400)=c4;
x(25,1:400)=c5;x(26,1:400)=c6;x(27,1:400)=c7;x(28,1:400)=c8;
x(29,1:400)=c9;x(30,1:400)=c10;x(31,1:400)=d1;x(32,1:400)=d2;
x(33,1:400)=d3;x(34,1:400)=d4;x(35,1:400)=d5;x(36,1:400)=d6;
x(37,1:400)=d7;x(38,1:400)=d8;x(39,1:400)=d9;x(40,1:400)=d10;
x(41,1:400)=e1;x(42,1:400)=e2;x(43,1:400)=e3;x(44,1:400)=e4;
x(45,1:400)=e5;x(46,1:400)=e6;x(47,1:400)=e7;x(48,1:400)=e8;
x(49,1:400)=e9;x(50,1:400)=e10;x(51,1:400)=f1;x(52,1:400)=f2;
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x(53,1:400)=f3;x(54,1:400)=f4;x(55,1:400)=f5;x(56,1:400)=f6;
x(57,1:400)=f7;x(58,1:400)=f8;x(59,1:400)=f9;x(60,1:400)=f10;
x(61,1:400)=g1;x(62,1:400)=g2;x(63,1:400)=g3;x(64,1:400)=g4;
x(65,1:400)=g5;x(66,1:400)=g6;(67,1:400)=g7;x(68,1:400)=g8;
x(69,1:400)=g9;x(70,1:400)=g10;x(71,1:400)=h1;x(72,1:400)=h2;
x(73,1:400)=h3;x(74,1:400)=h4;x(75,1:400)=h5;x(76,1:400)=h6;
x(77,1:400)=h7;x(78,1:400)=h8;x(79,1:400)=h9;x(80,1:400)=h10;
x(81,1:400)=i1;x(82,1:400)=i2;x(83,1:400)=i3;x(84,1:400)=i4;
x(85,1:400)=i5;x(86,1:400)=i6;x(87,1:400)=i7;x(88,1:400)=i8;
x(89,1:400)=i9;x(90,1:400)=i10;x(91,1:400)=j1;x(92,1:400)=j2;
x(93,1:400)=j3;x(94,1:400)=j4;x(95,1:400)=j5;x(96,1:400)=j6;
x(97,1:400)=j7;x(98,1:400)=j8;x(99,1:400)=j9;x(100,1:400)=j10;
x(101,1:400)=k1;x(102,1:400)=k2;x(103,1:400)=k3;x(104,1:400)=k4;
x(105,1:400)=k5;x(106,1:400)=k6;x(107,1:400)=k7;x(108,1:400)=k8;
x(109,1:400)=k9;x(110,1:400)=k10;x(111,1:400)=l1;x(112,1:400)=l2;
x(113,1:400)=l3;x(114,1:400)=l4;x(115,1:400)=l5;x(116,1:400)=l6;
x(117,1:400)=l7;x(118,1:400)=l8;x(119,1:400)=l9;x(120,1:400)=l10;
x(121,1:400)=m1;x(122,1:400)=m2;x(123,1:400)=m3;x(124,1:400)=m4;
x(125,1:400)=m5;x(126,1:400)=m6;x(127,1:400)=m7;x(128,1:400)=m8;
x(129,1:400)=m9;x(130,1:400)=m10;x(131,1:400)=n1;x(132,1:400)=n2;
x(133,1:400)=n3;x(134,1:400)=n4;x(135,1:400)=n5;x(136,1:400)=n6;
x(137,1:400)=n7;x(138,1:400)=n8;x(139,1:400)=n9;x(140,1:400)=n10;
x(141,1:400)=o1;x(142,1:400)=o2;x(143,1:400)=o3;x(144,1:400)=o4;
x(145,1:400)=o5;x(146,1:400)=o6;x(147,1:400)=o7;x(148,1:400)=o8;
x(149,1:400)=o9;x(150,1:400)=o10;x(151,1:400)=p1;x(152,1:400)=p2;
x(153,1:400)=p3;x(154,1:400)=p4;x(155,1:400)=p5;x(156,1:400)=p6;
x(157,1:400)=p7;x(158,1:400)=p8;x(159,1:400)=p9;x(160,1:400)=p10;
x(161,1:400)=q1;x(162,1:400)=q2;x(163,1:400)=q3;x(164,1:400)=q4;
x(165,1:400)=q5;x(166,1:400)=q6;x(167,1:400)=q7;x(168,1:400)=q8;
x(169,1:400)=q9;x(170,1:400)=q10;x(171,1:400)=r1;x(172,1:400)=r2;
x(173,1:400)=r3;x(174,1:400)=r4;x(175,1:400)=r5;x(176,1:400)=r6;
x(177,1:400)=r7;x(178,1:400)=r8;x(179,1:400)=r9;x(180,1:400)=r10;
x(181,1:400)=s1;x(182,1:400)=s2;x(183,1:400)=s3;x(184,1:400)=s4;
x(185,1:400)=s5;x(186,1:400)=s6;x(187,1:400)=s7;x(188,1:400)=s8;
x(189,1:400)=s9;x(190,1:400)=s10;x(191,1:400)=t1;x(192,1:400)=t2;
x(193,1:400)=t3;x(194,1:400)=t4;x(195,1:400)=t5;x(196,1:400)=t6;
x(197,1:400)=t7;x(198,1:400)=t8;x(199,1:400)=t9;x(200,1:400)=t10;
x(201,1:400)=u1;x(202,1:400)=u2;x(203,1:400)=u3;x(204,1:400)=u4;
x(205,1:400)=u5;x(206,1:400)=u6;x(207,1:400)=u7;x(208,1:400)=u8;
x(209,1:400)=u9;x(210,1:400)=u10;x(211,1:400)=v1;x(212,1:400)=v2;
x(213,1:400)=v3;x(214,1:400)=v4;x(215,1:400)=v5;x(216,1:400)=v6;
x(217,1:400)=v7;x(218,1:400)=v8;x(219,1:400)=v9;x(220,1:400)=v10;
x(221,1:400)=w1;x(222,1:400)=w2;x(223,1:400)=w3;x(224,1:400)=w4;
x(225,1:400)=w5;x(226,1:400)=w6;x(227,1:400)=w7;x(228,1:400)=w8;
x(229,1:400)=w9;x(230,1:400)=w10;x(231,1:400)=x1;x(232,1:400)=x2;
x(233,1:400)=x3;x(234,1:400)=x4;x(235,1:400)=x5;x(236,1:400)=x6;
x(237,1:400)=x7;x(238,1:400)=x8;x(239,1:400)=x9;x(240,1:400)=x10;
x(241,1:400)=y1;x(242,1:400)=y2;x(243,1:400)=y3;x(244,1:400)=y4;
x(245,1:400)=y5;x(246,1:400)=y6;x(247,1:400)=y7;x(248,1:400)=y8;
x(249,1:400)=y9;x(250,1:400)=y10;x(251,1:400)=z1;x(252,1:400)=z2;
x(253,1:400)=z3;x(254,1:400)=z4;x(255,1:400)=z5;x(256,1:400)=z6;
x(257,1:400)=z7;x(258,1:400)=z8;x(259,1:400)=z9;x(260,1:400)=z10;
```

```matlab
%Proses Bipolar
for k=1:260
    for i=1:400
        if x(k,i)>0
            x(k,i)=1;
        else x(k,i)=-1;
        end
    end
end

a1=x(1,1:400);a2=x(2,1:400);a3=x(3,1:400);a4=x(4,1:400);
a5=x(5,1:400);a6=x(6,1:400);a7=x(7,1:400);a8=x(8,1:400);
a9=x(9,1:400);a10=x(10,1:400);b1=x(11,1:400);b2=x(12,1:400);
b3=x(13,1:400);b4=x(14,1:400);b5=x(15,1:400);b6=x(16,1:400);
b7=x(17,1:400);b8=x(18,1:400);b9=x(19,1:400);b10=x(20,1:400);
c1=x(21,1:400);c2=x(22,1:400);c3=x(23,1:400);c4=x(24,1:400);
c5=x(25,1:400);c6=x(26,1:400);c7=x(27,1:400);c8=x(28,1:400);
c9=x(29,1:400);c10=x(30,1:400);d1=x(31,1:400);d2=x(32,1:400);
d3=x(33,1:400);d4=x(34,1:400);d5=x(35,1:400);d6=x(36,1:400);
d7=x(37,1:400);d8=x(38,1:400);d9=x(39,1:400);d10=x(40,1:400);
e1=x(41,1:400);e2=x(42,1:400);e3=x(43,1:400);e4=x(44,1:400);
e5=x(45,1:400);e6=x(46,1:400);e7=x(47,1:400);e8=x(48,1:400);
e9=x(49,1:400);e10=x(50,1:400);f1=x(51,1:400);f2=x(52,1:400);
f3=x(53,1:400);f4=x(54,1:400);f5=x(55,1:400);f6=x(56,1:400);
f7=x(57,1:400);f8=x(58,1:400);f9=x(59,1:400);f10=x(60,1:400);
g1=x(61,1:400);g2=x(62,1:400);g3=x(63,1:400);g4=x(64,1:400);
g5=x(65,1:400);g6=x(66,1:400);g7=x(67,1:400);g8=x(68,1:400);
g9=x(69,1:400);g10=x(70,1:400);h1=x(71,1:400);h2=x(72,1:400);
h3=x(73,1:400);h4=x(74,1:400);h5=x(75,1:400);h6=x(76,1:400);
h7=x(77,1:400);h8=x(78,1:400);h9=x(79,1:400);h10=x(80,1:400);
i1=x(81,1:400);i2=x(82,1:400);i3=x(83,1:400);i4=x(84,1:400);
i5=x(85,1:400);i6=x(86,1:400);i7=x(87,1:400);i8=x(88,1:400);
i9=x(89,1:400);i10=x(90,1:400);j1=x(91,1:400);j2=x(92,1:400);
j3=x(93,1:400);j4=x(94,1:400);j5=x(95,1:400);j6=x(96,1:400);
j7=x(97,1:400);j8=x(98,1:400);j9=x(99,1:400);j10=x(100,1:400);
k1=x(101,1:400);k2=x(102,1:400);k3=x(103,1:400);k4=x(104,1:400);
k5=x(105,1:400);k6=x(106,1:400);k7=x(107,1:400);k8=x(108,1:400);
k9=x(109,1:400);k10=x(110,1:400);l1=x(111,1:400);l2=x(112,1:400);
l3=x(113,1:400);l4=x(114,1:400);l5=x(115,1:400);l6=x(116,1:400);
l7=x(117,1:400);l8=x(118,1:400);l9=x(119,1:400);l10=x(120,1:400);
m1=x(121,1:400);m2=x(122,1:400);m3=x(123,1:400);m4=x(124,1:400);
m5=x(125,1:400);m6=x(126,1:400);m7=x(127,1:400);m8=x(128,1:400);
m9=x(129,1:400);m10=x(130,1:400);n1=x(131,1:400);n2=x(132,1:400);
n3=x(133,1:400);n4=x(134,1:400);n5=x(135,1:400);n6=x(136,1:400);
n7=x(137,1:400);n8=x(138,1:400);n9=x(139,1:400);n10=x(140,1:400);
o1=x(141,1:400);o2=x(142,1:400);o3=x(143,1:400);o4=x(144,1:400);
o5=x(145,1:400);o6=x(146,1:400);o7=x(147,1:400);o8=x(148,1:400);
o9=x(149,1:400);o10=x(150,1:400);p2=x(152,1:400);p3=x(153,1:400);
p4=x(154,1:400);p5=x(155,1:400);p6=x(156,1:400);p7=x(157,1:400);
p8=x(158,1:400);p9=x(159,1:400);p10=x(160,1:400);q1=x(161,1:400);
q2=x(162,1:400);q3=x(163,1:400);q4=x(164,1:400);q5=x(165,1:400);
q6=x(166,1:400);q7=x(167,1:400);q8=x(168,1:400);q9=x(169,1:400);
q10=x(170,1:400);r1=x(171,1:400);r2=x(172,1:400);r3=x(173,1:400);
r4=x(174,1:400);r5=x(175,1:400);r6=x(176,1:400);r7=x(177,1:400);
r8=x(178,1:400);r9=x(179,1:400);r10=x(180,1:400);s1=x(181,1:400);
s2=x(182,1:400);s3=x(183,1:400);s4=x(184,1:400);s5=x(185,1:400);
s6=x(186,1:400);s7=x(187,1:400);s8=x(188,1:400);s9=x(189,1:400);
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s10=x(190,1:400);t1=x(191,1:400);t2=x(192,1:400);t3=x(193,1:400);
t4=x(194,1:400);t5=x(195,1:400);t6=x(196,1:400);t7=x(197,1:400);
t8=x(198,1:400);t9=x(199,1:400);t10=x(200,1:400);u1=x(201,1:400);
u2=x(202,1:400);u3=x(203,1:400);u4=x(204,1:400);u5=x(205,1:400);
u6=x(206,1:400);u7=x(207,1:400);u8=x(208,1:400);u9=x(209,1:400);
u10=x(210,1:400);v1=x(211,1:400);v2=x(212,1:400);v3=x(213,1:400);
v4=x(214,1:400);v5=x(215,1:400);v6=x(216,1:400);v7=x(217,1:400);
v8=x(218,1:400);v9=x(219,1:400);v10=x(220,1:400);w1=x(221,1:400);
w2=x(222,1:400);w3=x(223,1:400);w4=x(224,1:400);w5=x(225,1:400);
w6=x(226,1:400);w7=x(227,1:400);w8=x(228,1:400);w9=x(229,1:400);
w10=x(230,1:400);x1=x(231,1:400);x2=x(232,1:400);x3=x(233,1:400);
x4=x(234,1:400);x5=x(235,1:400);x6=x(236,1:400);x7=x(237,1:400);
x8=x(238,1:400);x9=x(239,1:400);x10=x(240,1:400);y1=x(241,1:400);
y2=x(242,1:400);y3=x(243,1:400);y4=x(244,1:400);y5=x(245,1:400);
y6=x(246,1:400);y7=x(247,1:400);y8=x(248,1:400);y9=x(249,1:400);
y10=x(250,1:400);z1=x(251,1:400);z2=x(252,1:400);z3=x(253,1:400);
z4=x(254,1:400);z5=x(255,1:400);z6=x(256,1:400);z7=x(257,1:400);
z8=x(258,1:400);z9=x(259,1:400);z10=x(260,1:400);

a=[transpose(a1),transpose(a2),transpose(a3),transpose(a4),transpo
se(a5),transpose(a6),transpose(a7),transpose(a8),transpose(a9),tra
nspose(a10),transpose(b1),transpose(b2),transpose(b3),transpose(b4
),transpose(b5),transpose(b6),transpose(b7),transpose(b8),transpos
e(b9),transpose(b10),transpose(c1),transpose(c2),transpose(c3),tra
nspose(c4),transpose(c5),transpose(c6),transpose(c7),transpose(c8)
,transpose(c9),transpose(c10),transpose(d1),transpose(d2),transpos
e(d3),transpose(d4),transpose(d5),transpose(d6),transpose(d7),tran
spose(d8),transpose(d9),transpose(d10),transpose(e1),transpose(e2)
,transpose(e3),transpose(e4),transpose(e5),transpose(e6),transpose
(e7),transpose(e8),transpose(e9),transpose(e10),transpose(f1),tran
spose(f2),transpose(f3),transpose(f4),transpose(f5),transpose(f6),
transpose(f7),transpose(f8),transpose(f9),transpose(f10),transpose
(g1),transpose(g2),transpose(g3),transpose(g4),transpose(g5),trans
pose(g6),transpose(g7),transpose(g8),transpose(g9),transpose(g10),
transpose(h1),transpose(h2),transpose(h3),transpose(h4),transpose(
h5),transpose(h6),transpose(h7),transpose(h8),transpose(h9),transp
ose(h10),transpose(i1),transpose(i2),transpose(i3),transpose(i4),t
ranspose(i5),transpose(i6),transpose(i7),transpose(i8),transpose(i
9),transpose(i10),transpose(j1),transpose(j2),transpose(j3),transp
ose(j4),transpose(j5),transpose(j6),transpose(j7),transpose(j8),tr
anspose(j9),transpose(j10),transpose(k1),transpose(k2),transpose(k
3),transpose(k4),transpose(k5),transpose(k6),transpose(k7),transpo
se(k8),transpose(k9),transpose(k10),transpose(l1),transpose(l2),tr
anspose(l3),transpose(l4),transpose(l5),transpose(l6),transpose(l7
),transpose(l8),transpose(l9),transpose(l10),transpose(m1),transpo
se(m2),transpose(m3),transpose(m4),transpose(m5),transpose(m6),tra
nspose(m7),transpose(m8),transpose(m9),transpose(m10),transpose(n1
),transpose(n2),transpose(n3),transpose(n4),transpose(n5),transpos
e(n6),transpose(n7),transpose(n8),transpose(n9),transpose(n10),tra
nspose(o1),transpose(o2),transpose(o3),transpose(o4),transpose(o5)
,transpose(o6),transpose(o7),transpose(o8),transpose(o9),transpose
(o10),transpose(p1),transpose(p2),transpose(p3),transpose(p4),tran
spose(p5),transpose(p6),transpose(p7),transpose(p8),transpose(p9),
transpose(p10),transpose(q1),transpose(q2),transpose(q3),transpose
(q4),transpose(q5),transpose(q6),transpose(q7),transpose(q8),trans
pose(q9),transpose(q10),transpose(r1),transpose(r2),transpose(r3),
transpose(r4),transpose(r5),transpose(r6),transpose(r7),transpose(
r8),transpose(r9),transpose(r10),transpose(s1),transpose(s2),trans
```

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pose(s3),transpose(s4),transpose(s5),transpose(s6),transpose(s7),t
ranspose(s8),transpose(s9),transpose(s10),transpose(t1),transpose(
t2),transpose(t3),transpose(t4),transpose(t5),transpose(t6),transp
ose(t7),transpose(t8),transpose(t9),transpose(t10),transpose(u1),t
ranspose(u2),transpose(u3),transpose(u4),transpose(u5),transpose(u
6),transpose(u7),transpose(u8),transpose(u9),transpose(u10),transp
ose(v1),transpose(v2),transpose(v3),transpose(v4),transpose(v5),tr
anspose(v6),transpose(v7),transpose(v8),transpose(v9),transpose(v1
0),transpose(w1),transpose(w2),transpose(w3),transpose(w4),transpo
se(w5),transpose(w6),transpose(w7),transpose(w8),transpose(w9),tra
nspose(w10),transpose(x1),transpose(x2),transpose(x3),transpose(x4
),transpose(x5),transpose(x6),transpose(x7),transpose(x8),transpos
e(x9),transpose(x10),transpose(y1),transpose(y2),transpose(y3),tra
nspose(y4),transpose(y5),transpose(y6),transpose(y7),transpose(y8)
,transpose(y9),transpose(y10),transpose(z1),transpose(z2),transpos
e(z3),transpose(z4),transpose(z5),transpose(z6),transpose(z7),tran
spose(z8),transpose(z9),transpose(z10)];

P=[a];
JumlahKlas = 26;
cc=[-50 50];
for i=1:400
    for j=1:2
        bb(i,j)=cc(j);
    end
end

net = newc([bb],JumlahKlas);
Bobot_Input = net.IW{1,1}
Bobot_Bias_Input = net.b{1,1}
net.trainParam.epochs = 1000;
net.trainParam.goal = 0.001;
net = train(net,P);
BobotAkhir_Input = net.IW{1,1}
BobotAkhir_Bias_Input = net.b{1,1}
Ht = sim(net,P);
H = vec2ind(Ht)

image1=imread('tesa1.bmp');image2=imread('tesa2.bmp');
image3=imread('tesa3.bmp');image4=imread('tesa4.bmp');
image5=imread('tesa5.bmp');image6=imread('tesa6.bmp');
image7=imread('tesa7.bmp');image8=imread('tesa8.bmp');
image9=imread('tesa9.bmp');image10=imread('tesa10.bmp');
image11=imread('tesb1.bmp');image12=imread('tesb2.bmp');
image13=imread('tesb3.bmp');image14=imread('tesb4.bmp');
image15=imread('tesb5.bmp');image16=imread('tesb6.bmp');
image17=imread('tesb7.bmp');image18=imread('tesb8.bmp');
image19=imread('tesb9.bmp');image20=imread('tesb10.bmp');
image21=imread('tesc1.bmp');image22=imread('tesc2.bmp');
image23=imread('tesc3.bmp');image24=imread('tesc4.bmp');
image25=imread('tesc5.bmp');image26=imread('tesc6.bmp');
image27=imread('tesc7.bmp');image28=imread('tesc8.bmp');
image29=imread('tesc9.bmp');image30=imread('tesc10.bmp');
image31=imread('tesd1.bmp');image32=imread('tesd2.bmp');
image33=imread('tesd3.bmp');image34=imread('tesd4.bmp');
image35=imread('tesd5.bmp');image36=imread('tesd6.bmp');
image37=imread('tesd7.bmp');image38=imread('tesd8.bmp');
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image39=imread('tesd9.bmp');image40=imread('tesd10.bmp');
image41=imread('tese1.bmp');image42=imread('tese2.bmp');
image43=imread('tese3.bmp');image44=imread('tese4.bmp');
image45=imread('tese5.bmp');image46=imread('tese6.bmp');
image47=imread('tese7.bmp');image48=imread('tese8.bmp');
image49=imread('tese9.bmp');image50=imread('tese10.bmp');
image51=imread('tesf1.bmp');image52=imread('tesf2.bmp');
image53=imread('tesf3.bmp');image54=imread('tesf4.bmp');
image55=imread('tesf5.bmp');image56=imread('tesf6.bmp');
image57=imread('tesf7.bmp');image58=imread('tesf8.bmp');
image59=imread('tesf9.bmp');image60=imread('tesf10.bmp');
image61=imread('tesg1.bmp');image62=imread('tesg2.bmp');
image63=imread('tesg3.bmp');image64=imread('tesg4.bmp');
image65=imread('tesg5.bmp');image66=imread('tesg6.bmp');
image67=imread('tesg7.bmp');image68=imread('tesg8.bmp');
image69=imread('tesg9.bmp');image70=imread('tesg10.bmp');
image71=imread('tesh1.bmp');image72=imread('tesh2.bmp');
image73=imread('tesh3.bmp');image74=imread('tesh4.bmp');
image75=imread('tesh5.bmp');image76=imread('tesh6.bmp');
image77=imread('tesh7.bmp');image78=imread('tesh8.bmp');
image79=imread('tesh9.bmp');image80=imread('tesh10.bmp');
image81=imread('tesi1.bmp');image82=imread('tesi2.bmp');
image83=imread('tesi3.bmp');image84=imread('tesi4.bmp');
image85=imread('tesi5.bmp');image86=imread('tesi6.bmp');
image87=imread('tesi7.bmp');image88=imread('tesi8.bmp');
image89=imread('tesi9.bmp');image90=imread('tesi10.bmp');
image91=imread('tesj1.bmp');image92=imread('tesj2.bmp');
image93=imread('tesj3.bmp');image94=imread('tesj4.bmp');
image95=imread('tesj5.bmp');image96=imread('tesj6.bmp');
image97=imread('tesj7.bmp');image98=imread('tesj8.bmp');
image99=imread('tesj9.bmp');image100=imread('tesj10.bmp');
image101=imread('tesk1.bmp');image102=imread('tesk2.bmp');
image103=imread('tesk3.bmp');image104=imread('tesk4.bmp');
image105=imread('tesk5.bmp');image106=imread('tesk6.bmp');
image107=imread('tesk7.bmp');image108=imread('tesk8.bmp');
image109=imread('tesk9.bmp');image110=imread('tesk10.bmp');
image111=imread('tesl1.bmp');image112=imread('tesl2.bmp');
image113=imread('tesl3.bmp');image114=imread('tesl4.bmp');
image115=imread('tesl5.bmp');image116=imread('tesl6.bmp');
image117=imread('tesl7.bmp');image118=imread('tesl8.bmp');
image119=imread('tesl9.bmp');image120=imread('tesl10.bmp');
image121=imread('tesm1.bmp');image122=imread('tesm2.bmp');
image123=imread('tesm3.bmp');image124=imread('tesm4.bmp');
image125=imread('tesm5.bmp');image126=imread('tesm6.bmp');
image127=imread('tesm7.bmp');image128=imread('tesm8.bmp');
image129=imread('tesm9.bmp');image130=imread('tesm10.bmp');
image131=imread('tesn1.bmp');image132=imread('tesn2.bmp');
image133=imread('tesn3.bmp');image134=imread('tesn4.bmp');
image135=imread('tesn5.bmp');image136=imread('tesn6.bmp');
image137=imread('tesn7.bmp');image138=imread('tesn8.bmp');
image139=imread('tesn9.bmp');image140=imread('tesn10.bmp');
image141=imread('teso1.bmp');image142=imread('teso2.bmp');
image143=imread('teso3.bmp');image144=imread('teso4.bmp');
image145=imread('teso5.bmp');image146=imread('teso6.bmp');
image147=imread('teso7.bmp');image148=imread('teso8.bmp');
image149=imread('teso9.bmp');image150=imread('teso10.bmp');
image151=imread('tesp1.bmp');image152=imread('tesp2.bmp');
image153=imread('tesp3.bmp');image154=imread('tesp4.bmp');
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image155=imread('tesp5.bmp');image156=imread('tesp6.bmp');
image157=imread('tesp7.bmp');image158=imread('tesp8.bmp');
image159=imread('tesp9.bmp');image160=imread('tesp10.bmp');
image161=imread('tesq1.bmp');image162=imread('tesq2.bmp');
image163=imread('tesq3.bmp');image164=imread('tesq4.bmp');
image165=imread('tesq5.bmp');image166=imread('tesq6.bmp');
image167=imread('tesq7.bmp');image168=imread('tesq8.bmp');
image169=imread('tesq9.bmp');image170=imread('tesq10.bmp');
image171=imread('tesr1.bmp');image172=imread('tesr2.bmp');
image173=imread('tesr3.bmp');image174=imread('tesr4.bmp');
image175=imread('tesr5.bmp');image176=imread('tesr6.bmp');
image177=imread('tesr7.bmp');image178=imread('tesr8.bmp');
image179=imread('tesr9.bmp');image180=imread('tesr10.bmp');
image181=imread('tess1.bmp');image182=imread('tess2.bmp');
image183=imread('tess3.bmp');image184=imread('tess4.bmp');
image185=imread('tess5.bmp');image186=imread('tess6.bmp');
image187=imread('tess7.bmp');image188=imread('tess8.bmp');
image189=imread('tess9.bmp');image190=imread('tess10.bmp');
image191=imread('test1.bmp');image192=imread('test2.bmp');
image193=imread('test3.bmp');image194=imread('test4.bmp');
image195=imread('test5.bmp');image196=imread('test6.bmp');
image197=imread('test7.bmp');image198=imread('test8.bmp');
image199=imread('test9.bmp');image200=imread('test10.bmp');
image201=imread('tesu1.bmp');image202=imread('tesu2.bmp');
image203=imread('tesu3.bmp');image204=imread('tesu4.bmp');
image205=imread('tesu5.bmp');image206=imread('tesu6.bmp');
image207=imread('tesu7.bmp');image208=imread('tesu8.bmp');
image209=imread('tesu9.bmp');image210=imread('tesu10.bmp');
image211=imread('tesv1.bmp');image212=imread('tesv2.bmp');
image213=imread('tesv3.bmp');image214=imread('tesv4.bmp');
image215=imread('tesv5.bmp');image216=imread('tesv6.bmp');
image217=imread('tesv7.bmp');image218=imread('tesv8.bmp');
image219=imread('tesv9.bmp');image220=imread('tesv10.bmp');
image221=imread('tesw1.bmp');image222=imread('tesw2.bmp');
image223=imread('tesw3.bmp');image224=imread('tesw4.bmp');
image225=imread('tesw5.bmp');image226=imread('tesw6.bmp');
image227=imread('tesw7.bmp');image228=imread('tesw8.bmp');
image229=imread('tesw9.bmp');image230=imread('tesw10.bmp');
image231=imread('tesx1.bmp');image232=imread('tesx2.bmp');
image233=imread('tesx3.bmp');image234=imread('tesx4.bmp');
image235=imread('tesx5.bmp');image236=imread('tesx6.bmp');
image237=imread('tesx7.bmp');image238=imread('tesx8.bmp');
image239=imread('tesx9.bmp');image240=imread('tesx10.bmp');
image241=imread('tesy1.bmp');image242=imread('tesy2.bmp');
image243=imread('tesy3.bmp');image244=imread('tesy4.bmp');
image245=imread('tesy5.bmp');image246=imread('tesy6.bmp');
image247=imread('tesy7.bmp');image248=imread('tesy8.bmp');
image249=imread('tesy9.bmp');image250=imread('tesy10.bmp');
image251=imread('tesz1.bmp');image252=imread('tesz2.bmp');
image253=imread('tesz3.bmp');image254=imread('tesz4.bmp');
image255=imread('tesz5.bmp');image256=imread('tesz6.bmp');
image257=imread('tesz7.bmp');image258=imread('tesz8.bmp');
image259=imread('tesz9.bmp');image260=imread('tesz10.bmp');
image261=imread('tesa11.bmp');image262=imread('tesa12.bmp');
image263=imread('tesa13.bmp');image264=imread('tesa14.bmp');
image265=imread('tesa15.bmp');image266=imread('tesb11.bmp');
image267=imread('tesb12.bmp');image268=imread('tesb13.bmp');
image269=imread('tesb14.bmp');image270=imread('tesb15.bmp');
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image271=imread('tesc11.bmp');image272=imread('tesc12.bmp');
image273=imread('tesc13.bmp');image274=imread('tesc14.bmp');
image275=imread('tesc15.bmp');image276=imread('tesd11.bmp');
image277=imread('tesd12.bmp');image278=imread('tesd13.bmp');
image279=imread('tesd14.bmp');image280=imread('tesd15.bmp');
image281=imread('tese11.bmp');image282=imread('tese12.bmp');
image283=imread('tese13.bmp');image284=imread('tese14.bmp');
image285=imread('tese15.bmp');image286=imread('tesf11.bmp');
image287=imread('tesf12.bmp');image288=imread('tesf13.bmp');
image289=imread('tesf14.bmp');image290=imread('tesf15.bmp');
image291=imread('tesg11.bmp');image292=imread('tesg12.bmp');
image293=imread('tesg13.bmp');image294=imread('tesg14.bmp');
image295=imread('tesg15.bmp');image296=imread('tesh11.bmp');
image297=imread('tesh12.bmp');image298=imread('tesh13.bmp');
image299=imread('tesh14.bmp');image300=imread('tesh15.bmp');
image301=imread('tesi11.bmp');image302=imread('tesi12.bmp');
image303=imread('tesi13.bmp');image304=imread('tesi14.bmp');
image305=imread('tesi15.bmp');image306=imread('tesj11.bmp');
image307=imread('tesj12.bmp');image308=imread('tesj13.bmp');
image309=imread('tesj14.bmp');image310=imread('tesj15.bmp');
image311=imread('tesk11.bmp');image312=imread('tesk12.bmp');
image313=imread('tesk13.bmp');image314=imread('tesk14.bmp');
image315=imread('tesk15.bmp');image316=imread('tesl11.bmp');
image317=imread('tesl12.bmp');image318=imread('tesl13.bmp');
image319=imread('tesl14.bmp');image320=imread('tesl15.bmp');
image321=imread('tesm11.bmp');image322=imread('tesm12.bmp');
image323=imread('tesm13.bmp');image324=imread('tesm14.bmp');
image325=imread('tesm15.bmp');image326=imread('tesn11.bmp');
image327=imread('tesn12.bmp');image328=imread('tesn13.bmp');
image329=imread('tesn14.bmp');image330=imread('tesn15.bmp');
image331=imread('teso11.bmp');image332=imread('teso12.bmp');
image333=imread('teso13.bmp');image334=imread('teso14.bmp');
image335=imread('teso15.bmp');image336=imread('tesp11.bmp');
image337=imread('tesp12.bmp');image338=imread('tesp13.bmp');
image339=imread('tesp14.bmp');image340=imread('tesp15.bmp');
image341=imread('tesq11.bmp');image342=imread('tesq12.bmp');
image343=imread('tesq13.bmp');image344=imread('tesq14.bmp');
image345=imread('tesq15.bmp');image346=imread('tesr11.bmp');
image347=imread('tesr12.bmp');image348=imread('tesr13.bmp');
image349=imread('tesr14.bmp');image350=imread('tesr15.bmp');
image351=imread('tess11.bmp');image352=imread('tess12.bmp');
image353=imread('tess13.bmp');image354=imread('tess14.bmp');
image355=imread('tess15.bmp');image356=imread('test11.bmp');
image357=imread('test12.bmp');image358=imread('test13.bmp');
image359=imread('test14.bmp');image360=imread('test15.bmp');
image361=imread('tesu11.bmp');image362=imread('tesu12.bmp');
image363=imread('tesu13.bmp');image364=imread('tesu14.bmp');
image365=imread('tesu15.bmp');image366=imread('tesv11.bmp');
image367=imread('tesv12.bmp');image368=imread('tesv13.bmp');
image369=imread('tesv14.bmp');image370=imread('tesv15.bmp');
image371=imread('tesw11.bmp');image372=imread('tesw12.bmp');
image373=imread('tesw13.bmp');image374=imread('tesw14.bmp');
image375=imread('tesw15.bmp');image376=imread('tesx11.bmp');
image377=imread('tesx12.bmp');image378=imread('tesx13.bmp');
image379=imread('tesx14.bmp');image380=imread('tesx15.bmp');
image381=imread('tesy11.bmp');image382=imread('tesy12.bmp');
image383=imread('tesy13.bmp');image384=imread('tesy14.bmp');
image385=imread('tesy15.bmp');image386=imread('tesz11.bmp');
```

```matlab
image387=imread('tesz12.bmp');image388=imread('tesz13.bmp');
image389=imread('tesz14.bmp');image390=imread('tesz15.bmp');

%Database huruf-huruf
a1=image1(1:20,1:20);        a1=reshape(a1,1,400);    a1=single(a1);
a2=image2(1:20,1:20);        a2=reshape(a2,1,400);    a2=single(a2);
a3=image3(1:20,1:20);        a3=reshape(a3,1,400);    a3=single(a3);
a4=image4(1:20,1:20);        a4=reshape(a4,1,400);    a4=single(a4);
a5=image5(1:20,1:20);        a5=reshape(a5,1,400);    a5=single(a5);
a6=image6(1:20,1:20);        a6=reshape(a6,1,400);    a6=single(a6);
a7=image7(1:20,1:20);        a7=reshape(a7,1,400);    a7=single(a7);
a8=image8(1:20,1:20);        a8=reshape(a8,1,400);    a8=single(a8);
a9=image9(1:20,1:20);        a9=reshape(a9,1,400);    a9=single(a9);
a10=image10(1:20,1:20);      a10=reshape(a10,1,400);
a10=single(a10);
b1=image11(1:20,1:20);       b1=reshape(b1,1,400);    b1=single(b1);
b2=image12(1:20,1:20);       b2=reshape(b2,1,400);    b2=single(b2);
b3=image13(1:20,1:20);       b3=reshape(b3,1,400);    b3=single(b3);
b4=image14(1:20,1:20);       b4=reshape(b4,1,400);    b4=single(b4);
b5=image15(1:20,1:20);       b5=reshape(b5,1,400);    b5=single(b5);
b6=image16(1:20,1:20);       b6=reshape(b6,1,400);    b6=single(b6);
b7=image17(1:20,1:20);       b7=reshape(b7,1,400);    b7=single(b7);
b8=image18(1:20,1:20);       b8=reshape(b8,1,400);    b8=single(b8);
b9=image19(1:20,1:20);       b9=reshape(b9,1,400);    b9=single(b9);
b10=image20(1:20,1:20);      b10=reshape(b10,1,400);
b10=single(b10);
c1=image21(1:20,1:20);       c1=reshape(c1,1,400);    c1=single(c1);
c2=image22(1:20,1:20);       c2=reshape(c2,1,400);    c2=single(c2);
c3=image23(1:20,1:20);       c3=reshape(c3,1,400);    c3=single(c3);
c4=image24(1:20,1:20);       c4=reshape(c4,1,400);    c4=single(c4);
c5=image25(1:20,1:20);       c5=reshape(c5,1,400);    c5=single(c5);
c6=image26(1:20,1:20);       c6=reshape(c6,1,400);    c6=single(c6);
c7=image27(1:20,1:20);       c7=reshape(c7,1,400);    c7=single(c7);
c8=image28(1:20,1:20);       c8=reshape(c8,1,400);    c8=single(c8);
c9=image29(1:20,1:20);       c9=reshape(c9,1,400);    c9=single(c9);
c10=image30(1:20,1:20);      c10=reshape(c10,1,400);
c10=single(c10);
d1=image31(1:20,1:20);       d1=reshape(d1,1,400);    d1=single(d1);
d2=image32(1:20,1:20);       d2=reshape(d2,1,400);    d2=single(d2);
d3=image33(1:20,1:20);       d3=reshape(d3,1,400);    d3=single(d3);
d4=image34(1:20,1:20);       d4=reshape(d4,1,400);    d4=single(d4);
d5=image35(1:20,1:20);       d5=reshape(d5,1,400);    d5=single(d5);
d6=image36(1:20,1:20);       d6=reshape(d6,1,400);    d6=single(d6);
d7=image37(1:20,1:20);       d7=reshape(d7,1,400);    d7=single(d7);
d8=image38(1:20,1:20);       d8=reshape(d8,1,400);    d8=single(d8);
d9=image39(1:20,1:20);       d9=reshape(d9,1,400);    d9=single(d9);
d10=image40(1:20,1:20);      d10=reshape(d10,1,400);
d10=single(d10);
e1=image41(1:20,1:20);       e1=reshape(e1,1,400);    e1=single(e1);
e2=image42(1:20,1:20);       e2=reshape(e2,1,400);    e2=single(e2);
e3=image43(1:20,1:20);       e3=reshape(e3,1,400);    e3=single(e3);
e4=image44(1:20,1:20);       e4=reshape(e4,1,400);    e4=single(e4);
e5=image45(1:20,1:20);       e5=reshape(e5,1,400);    e5=single(e5);
e6=image46(1:20,1:20);       e6=reshape(e6,1,400);    e6=single(e6);
e7=image47(1:20,1:20);       e7=reshape(e7,1,400);    e7=single(e7);
e8=image48(1:20,1:20);       e8=reshape(e8,1,400);    e8=single(e8);
e9=image49(1:20,1:20);       e9=reshape(e9,1,400);    e9=single(e9);
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e10=image50(1:20,1:20);     e10=reshape(e10,1,400);
e10=single(e10);
f1=image51(1:20,1:20);      f1=reshape(f1,1,400);     f1=single(f1);
f2=image52(1:20,1:20);      f2=reshape(f2,1,400);     f2=single(f2);
f3=image53(1:20,1:20);      f3=reshape(f3,1,400);     f3=single(f3);
f4=image54(1:20,1:20);      f4=reshape(f4,1,400);     f4=single(f4);
f5=image55(1:20,1:20);      f5=reshape(f5,1,400);     f5=single(f5);
f6=image56(1:20,1:20);      f6=reshape(f6,1,400);     f6=single(f6);
f7=image57(1:20,1:20);      f7=reshape(f7,1,400);     f7=single(f7);
f8=image58(1:20,1:20);      f8=reshape(f8,1,400);     f8=single(f8);
f9=image59(1:20,1:20);      f9=reshape(f9,1,400);     f9=single(f9);
f10=image60(1:20,1:20);     f10=reshape(f10,1,400);
f10=single(f10);
g1=image61(1:20,1:20);      g1=reshape(g1,1,400);     g1=single(g1);
g2=image62(1:20,1:20);      g2=reshape(g2,1,400);     g2=single(g2);
g3=image63(1:20,1:20);      g3=reshape(g3,1,400);     g3=single(g3);
g4=image64(1:20,1:20);      g4=reshape(g4,1,400);     g4=single(g4);
g5=image65(1:20,1:20);      g5=reshape(g5,1,400);     g5=single(g5);
g6=image66(1:20,1:20);      g6=reshape(g6,1,400);     g6=single(g6);
g7=image67(1:20,1:20);      g7=reshape(g7,1,400);     g7=single(g7);
g8=image68(1:20,1:20);      g8=reshape(g8,1,400);     g8=single(g8);
g9=image69(1:20,1:20);      g9=reshape(g9,1,400);     g9=single(g9);
g10=image70(1:20,1:20);     g10=reshape(g10,1,400);
g10=single(g10);
h1=image71(1:20,1:20);      h1=reshape(h1,1,400);     h1=single(h1);
h2=image72(1:20,1:20);      h2=reshape(h2,1,400);     h2=single(h2);
h3=image73(1:20,1:20);      h3=reshape(h3,1,400);     h3=single(h3);
h4=image74(1:20,1:20);      h4=reshape(h4,1,400);     h4=single(h4);
h5=image75(1:20,1:20);      h5=reshape(h5,1,400);     h5=single(h5);
h6=image76(1:20,1:20);      h6=reshape(h6,1,400);     h6=single(h6);
h7=image77(1:20,1:20);      h7=reshape(h7,1,400);     h7=single(h7);
h8=image78(1:20,1:20);      h8=reshape(h8,1,400);     h8=single(h8);
h9=image79(1:20,1:20);      h9=reshape(h9,1,400);     h9=single(h9);
h10=image80(1:20,1:20);     h10=reshape(h10,1,400);
h10=single(h10);
i1=image81(1:20,1:20);      i1=reshape(i1,1,400);     i1=single(i1);
i2=image82(1:20,1:20);      i2=reshape(i2,1,400);     i2=single(i2);
i3=image83(1:20,1:20);      i3=reshape(i3,1,400);     i3=single(i3);
i4=image84(1:20,1:20);      i4=reshape(i4,1,400);     i4=single(i4);
i5=image85(1:20,1:20);      i5=reshape(i5,1,400);     i5=single(i5);
i6=image86(1:20,1:20);      i6=reshape(i6,1,400);     i6=single(i6);
i7=image87(1:20,1:20);      i7=reshape(i7,1,400);     i7=single(i7);
i8=image88(1:20,1:20);      i8=reshape(i8,1,400);     i8=single(i8);
i9=image89(1:20,1:20);      i9=reshape(i9,1,400);     i9=single(i9);
i10=image90(1:20,1:20);     i10=reshape(i10,1,400);
i10=single(i10);
j1=image91(1:20,1:20);      j1=reshape(j1,1,400);     j1=single(j1);
j2=image92(1:20,1:20);      j2=reshape(j2,1,400);     j2=single(j2);
j3=image93(1:20,1:20);      j3=reshape(j3,1,400);     j3=single(j3);
j4=image94(1:20,1:20);      j4=reshape(j4,1,400);     j4=single(j4);
j5=image95(1:20,1:20);      j5=reshape(j5,1,400);     j5=single(j5);
j6=image96(1:20,1:20);      j6=reshape(j6,1,400);     j6=single(j6);
j7=image97(1:20,1:20);      j7=reshape(j7,1,400);     j7=single(j7);
j8=image98(1:20,1:20);      j8=reshape(j8,1,400);     j8=single(j8);
j9=image99(1:20,1:20);      j9=reshape(j9,1,400);     j9=single(j9);
j10=image100(1:20,1:20);    j10=reshape(j10,1,400);
j10=single(j10);
k1=image101(1:20,1:20);     k1=reshape(k1,1,400);     k1=single(k1);
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k2=image102(1:20,1:20);      k2=reshape(k2,1,400);      k2=single(k2);
k3=image103(1:20,1:20);      k3=reshape(k3,1,400);      k3=single(k3);
k4=image104(1:20,1:20);      k4=reshape(k4,1,400);      k4=single(k4);
k5=image105(1:20,1:20);      k5=reshape(k5,1,400);      k5=single(k5);
k6=image106(1:20,1:20);      k6=reshape(k6,1,400);      k6=single(k6);
k7=image107(1:20,1:20);      k7=reshape(k7,1,400);      k7=single(k7);
k8=image108(1:20,1:20);      k8=reshape(k8,1,400);      k8=single(k8);
k9=image109(1:20,1:20);      k9=reshape(k9,1,400);      k9=single(k9);
k10=image110(1:20,1:20);     k10=reshape(k10,1,400);
k10=single(k10);
l1=image111(1:20,1:20);      l1=reshape(l1,1,400);      l1=single(l1);
l2=image112(1:20,1:20);      l2=reshape(l2,1,400);      l2=single(l2);
l3=image113(1:20,1:20);      l3=reshape(l3,1,400);      l3=single(l3);
l4=image114(1:20,1:20);      l4=reshape(l4,1,400);      l4=single(l4);
l5=image115(1:20,1:20);      l5=reshape(l5,1,400);      l5=single(l5);
l6=image116(1:20,1:20);      l6=reshape(l6,1,400);      l6=single(l6);
l7=image117(1:20,1:20);      l7=reshape(l7,1,400);      l7=single(l7);
l8=image118(1:20,1:20);      l8=reshape(l8,1,400);      l8=single(l8);
l9=image119(1:20,1:20);      l9=reshape(l9,1,400);      l9=single(l9);
l10=image120(1:20,1:20);     l10=reshape(l10,1,400);
l10=single(l10);
m1=image121(1:20,1:20);      m1=reshape(m1,1,400);      m1=single(m1);
m2=image122(1:20,1:20);      m2=reshape(m2,1,400);      m2=single(m2);
m3=image123(1:20,1:20);      m3=reshape(m3,1,400);      m3=single(m3);
m4=image124(1:20,1:20);      m4=reshape(m4,1,400);      m4=single(m4);
m5=image125(1:20,1:20);      m5=reshape(m5,1,400);      m5=single(m5);
m6=image126(1:20,1:20);      m6=reshape(m6,1,400);      m6=single(m6);
m7=image127(1:20,1:20);      m7=reshape(m7,1,400);      m7=single(m7);
m8=image128(1:20,1:20);      m8=reshape(m8,1,400);      m8=single(m8);
m9=image129(1:20,1:20);      m9=reshape(m9,1,400);      m9=single(m9);
m10=image130(1:20,1:20);     m10=reshape(m10,1,400);
m10=single(m10);
n1=image131(1:20,1:20);      n1=reshape(n1,1,400);      n1=single(n1);
n2=image132(1:20,1:20);      n2=reshape(n2,1,400);      n2=single(n2);
n3=image133(1:20,1:20);      n3=reshape(n3,1,400);      n3=single(n3);
n4=image134(1:20,1:20);      n4=reshape(n4,1,400);      n4=single(n4);
n5=image135(1:20,1:20);      n5=reshape(n5,1,400);      n5=single(n5);
n6=image136(1:20,1:20);      n6=reshape(n6,1,400);      n6=single(n6);
n7=image137(1:20,1:20);      n7=reshape(n7,1,400);      n7=single(n7);
n8=image138(1:20,1:20);      n8=reshape(n8,1,400);      n8=single(n8);
n9=image139(1:20,1:20);      n9=reshape(n9,1,400);      n9=single(n9);
n10=image140(1:20,1:20);     n10=reshape(n10,1,400);
n10=single(n10);
o1=image141(1:20,1:20);      o1=reshape(o1,1,400);      o1=single(o1);
o2=image142(1:20,1:20);      o2=reshape(o2,1,400);      o2=single(o2);
o3=image143(1:20,1:20);      o3=reshape(o3,1,400);      o3=single(o3);
o4=image144(1:20,1:20);      o4=reshape(o4,1,400);      o4=single(o4);
o5=image145(1:20,1:20);      o5=reshape(o5,1,400);      o5=single(o5);
o6=image146(1:20,1:20);      o6=reshape(o6,1,400);      o6=single(o6);
o7=image147(1:20,1:20);      o7=reshape(o7,1,400);      o7=single(o7);
o8=image148(1:20,1:20);      o8=reshape(o8,1,400);      o8=single(o8);
o9=image149(1:20,1:20);      o9=reshape(o9,1,400);      o9=single(o9);
o10=image150(1:20,1:20);     o10=reshape(o10,1,400);
o10=single(o10);
p1=image151(1:20,1:20);      p1=reshape(p1,1,400);      p1=single(p1);
p2=image152(1:20,1:20);      p2=reshape(p2,1,400);      p2=single(p2);
p3=image153(1:20,1:20);      p3=reshape(p3,1,400);      p3=single(p3);
p4=image154(1:20,1:20);      p4=reshape(p4,1,400);      p4=single(p4);
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p5=image155(1:20,1:20);      p5=reshape(p5,1,400);    p5=single(p5);
p6=image156(1:20,1:20);      p6=reshape(p6,1,400);    p6=single(p6);
p7=image157(1:20,1:20);      p7=reshape(p7,1,400);    p7=single(p7);
p8=image158(1:20,1:20);      p8=reshape(p8,1,400);    p8=single(p8);
p9=image159(1:20,1:20);      p9=reshape(p9,1,400);    p9=single(p9);
p10=image160(1:20,1:20);     p10=reshape(p10,1,400);
p10=single(p10);
q1=image161(1:20,1:20);      q1=reshape(q1,1,400);    q1=single(q1);
q2=image162(1:20,1:20);      q2=reshape(q2,1,400);    q2=single(q2);
q3=image163(1:20,1:20);      q3=reshape(q3,1,400);    q3=single(q3);
q4=image164(1:20,1:20);      q4=reshape(q4,1,400);    q4=single(q4);
q5=image165(1:20,1:20);      q5=reshape(q5,1,400);    q5=single(q5);
q6=image166(1:20,1:20);      q6=reshape(q6,1,400);    q6=single(q6);
q7=image167(1:20,1:20);      q7=reshape(q7,1,400);    q7=single(q7);
q8=image168(1:20,1:20);      q8=reshape(q8,1,400);    q8=single(q8);
q9=image169(1:20,1:20);      q9=reshape(q9,1,400);    q9=single(q9);
q10=image170(1:20,1:20);     q10=reshape(q10,1,400);
q10=single(q10);
r1=image171(1:20,1:20);      r1=reshape(r1,1,400);    r1=single(r1);
r2=image172(1:20,1:20);      r2=reshape(r2,1,400);    r2=single(r2);
r3=image173(1:20,1:20);      r3=reshape(r3,1,400);    r3=single(r3);
r4=image174(1:20,1:20);      r4=reshape(r4,1,400);    r4=single(r4);
r5=image175(1:20,1:20);      r5=reshape(r5,1,400);    r5=single(r5);
r6=image176(1:20,1:20);      r6=reshape(r6,1,400);    r6=single(r6);
r7=image177(1:20,1:20);      r7=reshape(r7,1,400);    r7=single(r7);
r8=image178(1:20,1:20);      r8=reshape(r8,1,400);    r8=single(r8);
r9=image179(1:20,1:20);      r9=reshape(r9,1,400);    r9=single(r9);
r10=image180(1:20,1:20);     r10=reshape(r10,1,400);
r10=single(r10);
s1=image181(1:20,1:20);      s1=reshape(s1,1,400);    s1=single(s1);
s2=image182(1:20,1:20);      s2=reshape(s2,1,400);    s2=single(s2);
s3=image183(1:20,1:20);      s3=reshape(s3,1,400);    s3=single(s3);
s4=image184(1:20,1:20);      s4=reshape(s4,1,400);    s4=single(s4);
s5=image185(1:20,1:20);      s5=reshape(s5,1,400);    s5=single(s5);
s6=image186(1:20,1:20);      s6=reshape(s6,1,400);    s6=single(s6);
s7=image187(1:20,1:20);      s7=reshape(s7,1,400);    s7=single(s7);
s8=image188(1:20,1:20);      s8=reshape(s8,1,400);    s8=single(s8);
s9=image189(1:20,1:20);      s9=reshape(s9,1,400);    s9=single(s9);
s10=image190(1:20,1:20);     s10=reshape(s10,1,400);
s10=single(s10);
t1=image191(1:20,1:20);      t1=reshape(t1,1,400);    t1=single(t1);
t2=image192(1:20,1:20);      t2=reshape(t2,1,400);    t2=single(t2);
t3=image193(1:20,1:20);      t3=reshape(t3,1,400);    t3=single(t3);
t4=image194(1:20,1:20);      t4=reshape(t4,1,400);    t4=single(t4);
t5=image195(1:20,1:20);      t5=reshape(t5,1,400);    t5=single(t5);
t6=image196(1:20,1:20);      t6=reshape(t6,1,400);    t6=single(t6);
t7=image197(1:20,1:20);      t7=reshape(t7,1,400);    t7=single(t7);
t8=image198(1:20,1:20);      t8=reshape(t8,1,400);    t8=single(t8);
t9=image199(1:20,1:20);      t9=reshape(t9,1,400);    t9=single(t9);
t10=image200(1:20,1:20);     t10=reshape(t10,1,400);
t10=single(t10);
u1=image201(1:20,1:20);      u1=reshape(u1,1,400);    u1=single(u1);
u2=image202(1:20,1:20);      u2=reshape(u2,1,400);    u2=single(u2);
u3=image203(1:20,1:20);      u3=reshape(u3,1,400);    u3=single(u3);
u4=image204(1:20,1:20);      u4=reshape(u4,1,400);    u4=single(u4);
u5=image205(1:20,1:20);      u5=reshape(u5,1,400);    u5=single(u5);
u6=image206(1:20,1:20);      u6=reshape(u6,1,400);    u6=single(u6);
u7=image207(1:20,1:20);      u7=reshape(u7,1,400);    u7=single(u7);
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u8=image208(1:20,1:20);      u8=reshape(u8,1,400);    u8=single(u8);
u9=image209(1:20,1:20);      u9=reshape(u9,1,400);    u9=single(u9);
u10=image210(1:20,1:20);     u10=reshape(u10,1,400);
u10=single(u10);
v1=image211(1:20,1:20);      v1=reshape(v1,1,400);    v1=single(v1);
v2=image212(1:20,1:20);      v2=reshape(v2,1,400);    v2=single(v2);
v3=image213(1:20,1:20);      v3=reshape(v3,1,400);    v3=single(v3);
v4=image214(1:20,1:20);      v4=reshape(v4,1,400);    v4=single(v4);
v5=image215(1:20,1:20);      v5=reshape(v5,1,400);    v5=single(v5);
v6=image216(1:20,1:20);      v6=reshape(v6,1,400);    v6=single(v6);
v7=image217(1:20,1:20);      v7=reshape(v7,1,400);    v7=single(v7);
v8=image218(1:20,1:20);      v8=reshape(v8,1,400);    v8=single(v8);
v9=image219(1:20,1:20);      v9=reshape(v9,1,400);    v9=single(v9);
v10=image220(1:20,1:20);     v10=reshape(v10,1,400);
v10=single(v10);
w1=image221(1:20,1:20);      w1=reshape(w1,1,400);    w1=single(w1);
w2=image222(1:20,1:20);      w2=reshape(w2,1,400);    w2=single(w2);
w3=image223(1:20,1:20);      w3=reshape(w3,1,400);    w3=single(w3);
w4=image224(1:20,1:20);      w4=reshape(w4,1,400);    w4=single(w4);
w5=image225(1:20,1:20);      w5=reshape(w5,1,400);    w5=single(w5);
w6=image226(1:20,1:20);      w6=reshape(w6,1,400);    w6=single(w6);
w7=image227(1:20,1:20);      w7=reshape(w7,1,400);    w7=single(w7);
w8=image228(1:20,1:20);      w8=reshape(w8,1,400);    w8=single(w8);
w9=image229(1:20,1:20);      w9=reshape(w9,1,400);    w9=single(w9);
w10=image230(1:20,1:20);     w10=reshape(w10,1,400);
w10=single(w10);
x1=image231(1:20,1:20);      x1=reshape(x1,1,400);    x1=single(x1);
x2=image232(1:20,1:20);      x2=reshape(x2,1,400);    x2=single(x2);
x3=image233(1:20,1:20);      x3=reshape(x3,1,400);    x3=single(x3);
x4=image234(1:20,1:20);      x4=reshape(x4,1,400);    x4=single(x4);
x5=image235(1:20,1:20);      x5=reshape(x5,1,400);    x5=single(x5);
x6=image236(1:20,1:20);      x6=reshape(x6,1,400);    x6=single(x6);
x7=image237(1:20,1:20);      x7=reshape(x7,1,400);    x7=single(x7);
x8=image238(1:20,1:20);      x8=reshape(x8,1,400);    x8=single(x8);
x9=image239(1:20,1:20);      x9=reshape(x9,1,400);    x9=single(x9);
x10=image240(1:20,1:20);     x10=reshape(x10,1,400);
x10=single(x10);
y1=image241(1:20,1:20);      y1=reshape(y1,1,400);    y1=single(y1);
y2=image242(1:20,1:20);      y2=reshape(y2,1,400);    y2=single(y2);
y3=image243(1:20,1:20);      y3=reshape(y3,1,400);    y3=single(y3);
y4=image244(1:20,1:20);      y4=reshape(y4,1,400);    y4=single(y4);
y5=image245(1:20,1:20);      y5=reshape(y5,1,400);    y5=single(y5);
y6=image246(1:20,1:20);      y6=reshape(y6,1,400);    y6=single(y6);
y7=image247(1:20,1:20);      y7=reshape(y7,1,400);    y7=single(y7);
y8=image248(1:20,1:20);      y8=reshape(y8,1,400);    y8=single(y8);
y9=image249(1:20,1:20);      y9=reshape(y9,1,400);    y9=single(y9);
y10=image250(1:20,1:20);     y10=reshape(y10,1,400);
y10=single(y10);
z1=image251(1:20,1:20);      z1=reshape(z1,1,400);    z1=single(z1);
z2=image252(1:20,1:20);      z2=reshape(z2,1,400);    z2=single(z2);
z3=image253(1:20,1:20);      z3=reshape(z3,1,400);    z3=single(z3);
z4=image254(1:20,1:20);      z4=reshape(z4,1,400);    z4=single(z4);
z5=image255(1:20,1:20);      z5=reshape(z5,1,400);    z5=single(z5);
z6=image256(1:20,1:20);      z6=reshape(z6,1,400);    z6=single(z6);
z7=image257(1:20,1:20);      z7=reshape(z7,1,400);    z7=single(z7);
z8=image258(1:20,1:20);      z8=reshape(z8,1,400);    z8=single(z8);
z9=image259(1:20,1:20);      z9=reshape(z9,1,400);    z9=single(z9);
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z10=image260(1:20,1:20);      z10=reshape(z10,1,400);
z10=single(z10);
a11=image261(1:20,1:20);      a11=reshape(a11,1,400);
a11=single(a11);
a12=image262(1:20,1:20);      a12=reshape(a12,1,400);
a12=single(a12);
a13=image263(1:20,1:20);      a13=reshape(a13,1,400);
a13=single(a13);
a14=image264(1:20,1:20);      a14=reshape(a14,1,400);
a14=single(a14);
a15=image265(1:20,1:20);      a15=reshape(a15,1,400);
a15=single(a15);
b11=image266(1:20,1:20);      b11=reshape(b11,1,400);
b11=single(b11);
b12=image267(1:20,1:20);      b12=reshape(b12,1,400);
b12=single(b12);
b13=image268(1:20,1:20);      b13=reshape(b13,1,400);
b13=single(b13);
b14=image269(1:20,1:20);      b14=reshape(b14,1,400);
b14=single(b14);
b15=image270(1:20,1:20);      b15=reshape(b15,1,400);
b15=single(b15);
c11=image271(1:20,1:20);      c11=reshape(c11,1,400);
c11=single(c11);
c12=image272(1:20,1:20);      c12=reshape(c12,1,400);
c12=single(c12);
c13=image273(1:20,1:20);      c13=reshape(c13,1,400);
c13=single(c13);
c14=image274(1:20,1:20);      c14=reshape(c14,1,400);
c14=single(c14);
c15=image275(1:20,1:20);      c15=reshape(c15,1,400);
c15=single(c15);
d11=image276(1:20,1:20);      d11=reshape(d11,1,400);
d11=single(d11);
d12=image277(1:20,1:20);      d12=reshape(d12,1,400);
d12=single(d12);
d13=image278(1:20,1:20);      d13=reshape(d13,1,400);
d13=single(d13);
d14=image279(1:20,1:20);      d14=reshape(d14,1,400);
d14=single(d14);
d15=image280(1:20,1:20);      d15=reshape(d15,1,400);
d15=single(d15);
e11=image281(1:20,1:20);      e11=reshape(e11,1,400);
e11=single(e11);
e12=image282(1:20,1:20);      e12=reshape(e12,1,400);
e12=single(e12);
e13=image283(1:20,1:20);      e13=reshape(e13,1,400);
e13=single(e13);
e14=image284(1:20,1:20);      e14=reshape(e14,1,400);
e14=single(e14);
e15=image285(1:20,1:20);      e15=reshape(e15,1,400);
e15=single(e15);
f11=image286(1:20,1:20);      f11=reshape(f11,1,400);
f11=single(f11);
f12=image287(1:20,1:20);      f12=reshape(f12,1,400);
f12=single(f12);
f13=image288(1:20,1:20);      f13=reshape(f13,1,400);
f13=single(f13);
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f14=image289(1:20,1:20);        f14=reshape(f14,1,400);
f14=single(f14);
f15=image290(1:20,1:20);        f15=reshape(f15,1,400);
f15=single(f15);
g11=image291(1:20,1:20);        g11=reshape(g11,1,400);
g11=single(g11);
g12=image292(1:20,1:20);        g12=reshape(g12,1,400);
g12=single(g12);
g13=image293(1:20,1:20);        g13=reshape(g13,1,400);
g13=single(g13);
g14=image294(1:20,1:20);        g14=reshape(g14,1,400);
g14=single(g14);
g15=image295(1:20,1:20);        g15=reshape(g15,1,400);
g15=single(g15);
h11=image296(1:20,1:20);        h11=reshape(h11,1,400);
h11=single(h11);
h12=image297(1:20,1:20);        h12=reshape(h12,1,400);
h12=single(h12);
h13=image298(1:20,1:20);        h13=reshape(h13,1,400);
h13=single(h13);
h14=image299(1:20,1:20);        h14=reshape(h14,1,400);
h14=single(h14);
h15=image300(1:20,1:20);        h15=reshape(h15,1,400);
h15=single(h15);
i11=image301(1:20,1:20);        i11=reshape(i11,1,400);
i11=single(i11);
i12=image302(1:20,1:20);        i12=reshape(i12,1,400);
i12=single(i12);
i13=image303(1:20,1:20);        i13=reshape(i13,1,400);
i13=single(i13);
i14=image304(1:20,1:20);        i14=reshape(i14,1,400);
i14=single(i14);
i15=image305(1:20,1:20);        i15=reshape(i15,1,400);
i15=single(i15);
j11=image306(1:20,1:20);        j11=reshape(j11,1,400);
j11=single(j11);
j12=image307(1:20,1:20);        j12=reshape(j12,1,400);
j12=single(j12);
j13=image308(1:20,1:20);        j13=reshape(j13,1,400);
j13=single(j13);
j14=image309(1:20,1:20);        j14=reshape(j14,1,400);
j14=single(j14);
j15=image310(1:20,1:20);        j15=reshape(j15,1,400);
j15=single(j15);
k11=image311(1:20,1:20);        k11=reshape(k11,1,400);
k11=single(k11);
k12=image312(1:20,1:20);        k12=reshape(k12,1,400);
k12=single(k12);
k13=image313(1:20,1:20);        k13=reshape(k13,1,400);
k13=single(k13);
k14=image314(1:20,1:20);        k14=reshape(k14,1,400);
k14=single(k14);
k15=image315(1:20,1:20);        k15=reshape(k15,1,400);
k15=single(k15);
l11=image316(1:20,1:20);        l11=reshape(l11,1,400);
l11=single(l11);
l12=image317(1:20,1:20);        l12=reshape(l12,1,400);
l12=single(l12);
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l13=image318(1:20,1:20);      l13=reshape(l13,1,400);
l13=single(l13);
l14=image319(1:20,1:20);      l14=reshape(l14,1,400);
l14=single(l14);
l15=image320(1:20,1:20);      l15=reshape(l15,1,400);
l15=single(l15);
m11=image321(1:20,1:20);      m11=reshape(m11,1,400);
m11=single(m11);
m12=image322(1:20,1:20);      m12=reshape(m12,1,400);
m12=single(m12);
m13=image323(1:20,1:20);      m13=reshape(m13,1,400);
m13=single(m13);
m14=image324(1:20,1:20);      m14=reshape(m14,1,400);
m14=single(m14);
m15=image325(1:20,1:20);      m15=reshape(m15,1,400);
m15=single(m15);
n11=image326(1:20,1:20);      n11=reshape(n11,1,400);
n11=single(n11);
n12=image327(1:20,1:20);      n12=reshape(n12,1,400);
n12=single(n12);
n13=image328(1:20,1:20);      n13=reshape(n13,1,400);
n13=single(n13);
n14=image329(1:20,1:20);      n14=reshape(n14,1,400);
n14=single(n14);
n15=image330(1:20,1:20);      n15=reshape(n15,1,400);
n15=single(n15);
o11=image331(1:20,1:20);      o11=reshape(o11,1,400);
o11=single(o11);
o12=image332(1:20,1:20);      o12=reshape(o12,1,400);
o12=single(o12);
o13=image333(1:20,1:20);      o13=reshape(o13,1,400);
o13=single(o13);
o14=image334(1:20,1:20);      o14=reshape(o14,1,400);
o14=single(o14);
o15=image335(1:20,1:20);      o15=reshape(o15,1,400);
o15=single(o15);
p11=image336(1:20,1:20);      p11=reshape(p11,1,400);
p11=single(p11);
p12=image337(1:20,1:20);      p12=reshape(p12,1,400);
p12=single(p12);
p13=image338(1:20,1:20);      p13=reshape(p13,1,400);
p13=single(p13);
p14=image339(1:20,1:20);      p14=reshape(p14,1,400);
p14=single(p14);
p15=image340(1:20,1:20);      p15=reshape(p15,1,400);
p15=single(p15);
q11=image341(1:20,1:20);      q11=reshape(q11,1,400);
q11=single(q11);
q12=image342(1:20,1:20);      q12=reshape(q12,1,400);
q12=single(q12);
q13=image343(1:20,1:20);      q13=reshape(q13,1,400);
q13=single(q13);
q14=image344(1:20,1:20);      q14=reshape(q14,1,400);
q14=single(q14);
q15=image345(1:20,1:20);      q15=reshape(q15,1,400);
q15=single(q15);
r11=image346(1:20,1:20);      r11=reshape(r11,1,400);
r11=single(r11);
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r12=image347(1:20,1:20);      r12=reshape(r12,1,400);
r12=single(r12);
r13=image348(1:20,1:20);      r13=reshape(r13,1,400);
r13=single(r13);
r14=image349(1:20,1:20);      r14=reshape(r14,1,400);
r14=single(r14);
r15=image350(1:20,1:20);      r15=reshape(r15,1,400);
r15=single(r15);
s11=image351(1:20,1:20);      s11=reshape(s11,1,400);
s11=single(s11);
s12=image352(1:20,1:20);      s12=reshape(s12,1,400);
s12=single(s12);
s13=image353(1:20,1:20);      s13=reshape(s13,1,400);
s13=single(s13);
s14=image354(1:20,1:20);      s14=reshape(s14,1,400);
s14=single(s14);
s15=image355(1:20,1:20);      s15=reshape(s15,1,400);
s15=single(s15);
t11=image356(1:20,1:20);      t11=reshape(t11,1,400);
t11=single(t11);
t12=image357(1:20,1:20);      t12=reshape(t12,1,400);
t12=single(t12);
t13=image358(1:20,1:20);      t13=reshape(t13,1,400);
t13=single(t13);
t14=image359(1:20,1:20);      t14=reshape(t14,1,400);
t14=single(t14);
t15=image360(1:20,1:20);      t15=reshape(t15,1,400);
t15=single(t15);
u11=image361(1:20,1:20);      u11=reshape(u11,1,400);
u11=single(u11);
u12=image362(1:20,1:20);      u12=reshape(u12,1,400);
u12=single(u12);
u13=image363(1:20,1:20);      u13=reshape(u13,1,400);
u13=single(u13);
u14=image364(1:20,1:20);      u14=reshape(u14,1,400);
u14=single(u14);
u15=image365(1:20,1:20);      u15=reshape(u15,1,400);
u15=single(u15);
v11=image366(1:20,1:20);      v11=reshape(v11,1,400);
v11=single(v11);
v12=image367(1:20,1:20);      v12=reshape(v12,1,400);
v12=single(v12);
v13=image368(1:20,1:20);      v13=reshape(v13,1,400);
v13=single(v13);
v14=image369(1:20,1:20);      v14=reshape(v14,1,400);
v14=single(v14);
v15=image370(1:20,1:20);      v15=reshape(v15,1,400);
v15=single(v15);
w11=image371(1:20,1:20);      w11=reshape(w11,1,400);
w11=single(w11);
w12=image372(1:20,1:20);      w12=reshape(w12,1,400);
w12=single(w12);
w13=image373(1:20,1:20);      w13=reshape(w13,1,400);
w13=single(w13);
w14=image374(1:20,1:20);      w14=reshape(w14,1,400);
w14=single(w14);
w15=image375(1:20,1:20);      w15=reshape(w15,1,400);
w15=single(w15);
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x11=image376(1:20,1:20);      x11=reshape(x11,1,400);
x11=single(x11);
x12=image377(1:20,1:20);      x12=reshape(x12,1,400);
x12=single(x12);
x13=image378(1:20,1:20);      x13=reshape(x13,1,400);
x13=single(x13);
x14=image379(1:20,1:20);      x14=reshape(x14,1,400);
x14=single(x14);
x15=image380(1:20,1:20);      x15=reshape(x15,1,400);
x15=single(x15);
y11=image381(1:20,1:20);      y11=reshape(y11,1,400);
y11=single(y11);
y12=image382(1:20,1:20);      y12=reshape(y12,1,400);
y12=single(y12);
y13=image383(1:20,1:20);      y13=reshape(y13,1,400);
y13=single(y13);
y14=image384(1:20,1:20);      y14=reshape(y14,1,400);
y14=single(y14);
y15=image385(1:20,1:20);      y15=reshape(y15,1,400);
y15=single(y15);
z11=image386(1:20,1:20);      z11=reshape(z11,1,400);
z11=single(z11);
z12=image387(1:20,1:20);      z12=reshape(z12,1,400);
z12=single(z12);
z13=image388(1:20,1:20);      z13=reshape(z13,1,400);
z13=single(z13);
z14=image389(1:20,1:20);      z14=reshape(z14,1,400);
z14=single(z14);
z15=image390(1:20,1:20);      z15=reshape(z15,1,400);
z15=single(z15);


x(1,1:400)=a1;x(2,1:400)=a2;x(3,1:400)=a3;x(4,1:400)=a4;
x(5,1:400)=a5;x(6,1:400)=a6;x(7,1:400)=a7;x(8,1:400)=a8;
x(9,1:400)=a9;x(10,1:400)=a10;x(11,1:400)=b1;x(12,1:400)=b2;
x(13,1:400)=b3;x(14,1:400)=b4;x(15,1:400)=b5;x(16,1:400)=b6;
x(17,1:400)=b7;x(18,1:400)=b8;x(19,1:400)=b9;x(20,1:400)=b10;
x(21,1:400)=c1;x(22,1:400)=c2;x(23,1:400)=c3;x(24,1:400)=c4;
x(25,1:400)=c5;x(26,1:400)=c6;x(27,1:400)=c7;x(28,1:400)=c8;
x(29,1:400)=c9;x(30,1:400)=c10;x(31,1:400)=d1;x(32,1:400)=d2;
x(33,1:400)=d3;x(34,1:400)=d4;x(35,1:400)=d5;x(36,1:400)=d6;
x(37,1:400)=d7;x(38,1:400)=d8;x(39,1:400)=d9;x(40,1:400)=d10;
x(41,1:400)=e1;x(42,1:400)=e2;x(43,1:400)=e3;x(44,1:400)=e4;
x(45,1:400)=e5;x(46,1:400)=e6;x(47,1:400)=e7;x(48,1:400)=e8;
x(49,1:400)=e9;x(50,1:400)=e10;x(51,1:400)=f1;x(52,1:400)=f2;
x(53,1:400)=f3;x(54,1:400)=f4;x(55,1:400)=f5;x(56,1:400)=f6;
x(57,1:400)=f7;x(58,1:400)=f8;x(59,1:400)=f9;x(60,1:400)=f10;
x(61,1:400)=g1;x(62,1:400)=g2;x(63,1:400)=g3;x(64,1:400)=g4;
x(65,1:400)=g5;x(66,1:400)=g6;x(67,1:400)=g7;x(68,1:400)=g8;
x(69,1:400)=g9;x(70,1:400)=g10;x(71,1:400)=h1;x(72,1:400)=h2;
x(73,1:400)=h3;x(74,1:400)=h4;x(75,1:400)=h5;x(76,1:400)=h6;
x(77,1:400)=h7;x(78,1:400)=h8;x(79,1:400)=h9;x(80,1:400)=h10;
x(81,1:400)=i1;x(82,1:400)=i2;x(83,1:400)=i3;x(84,1:400)=i4;
x(85,1:400)=i5;x(86,1:400)=i6;x(87,1:400)=i7;x(88,1:400)=i8;
x(89,1:400)=i9;x(90,1:400)=i10;x(91,1:400)=j1;x(92,1:400)=j2;
x(93,1:400)=j3;x(94,1:400)=j4;x(95,1:400)=j5;x(96,1:400)=j6;
x(97,1:400)=j7;x(98,1:400)=j8;x(99,1:400)=j9;x(100,1:400)=j10;
x(101,1:400)=k1;x(102,1:400)=k2;x(103,1:400)=k3;x(104,1:400)=k4;
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x(105,1:400)=k5;x(106,1:400)=k6;x(107,1:400)=k7;x(108,1:400)=k8;
x(109,1:400)=k9;x(110,1:400)=k10;x(111,1:400)=l1;x(112,1:400)=l2;
x(113,1:400)=l3;x(114,1:400)=l4;x(115,1:400)=l5;x(116,1:400)=l6;
x(117,1:400)=l7;x(118,1:400)=l8;x(119,1:400)=l9;x(120,1:400)=l10;
x(121,1:400)=m1;x(122,1:400)=m2;x(123,1:400)=m3;x(124,1:400)=m4;
x(125,1:400)=m5;x(126,1:400)=m6;x(127,1:400)=m7;x(128,1:400)=m8;
x(129,1:400)=m9;x(130,1:400)=m10;x(131,1:400)=n1;x(132,1:400)=n2;
x(133,1:400)=n3;x(134,1:400)=n4;x(135,1:400)=n5;x(136,1:400)=n6;
x(137,1:400)=n7;x(138,1:400)=n8;x(139,1:400)=n9;x(140,1:400)=n10;
x(141,1:400)=o1;x(142,1:400)=o2;x(143,1:400)=o3;x(144,1:400)=o4;
x(145,1:400)=o5;x(146,1:400)=o6;x(147,1:400)=o7;x(148,1:400)=o8;
x(149,1:400)=o9;x(150,1:400)=o10;x(151,1:400)=p1;x(152,1:400)=p2;
x(153,1:400)=p3;x(154,1:400)=p4;x(155,1:400)=p5;x(156,1:400)=p6;
x(157,1:400)=p7;x(158,1:400)=p8;x(159,1:400)=p9;x(160,1:400)=p10;
x(161,1:400)=q1;x(162,1:400)=q2;x(163,1:400)=q3;x(164,1:400)=q4;
x(165,1:400)=q5;x(166,1:400)=q6;x(167,1:400)=q7;x(168,1:400)=q8;
x(169,1:400)=q9;x(170,1:400)=q10;x(171,1:400)=r1;x(172,1:400)=r2;
x(173,1:400)=r3;x(174,1:400)=r4;x(175,1:400)=r5;x(176,1:400)=r6;
x(177,1:400)=r7;x(178,1:400)=r8;x(179,1:400)=r9;x(180,1:400)=r10;
x(181,1:400)=s1;x(182,1:400)=s2;x(183,1:400)=s3;x(184,1:400)=s4;
x(185,1:400)=s5;x(186,1:400)=s6;x(187,1:400)=s7;x(188,1:400)=s8;
x(189,1:400)=s9;x(190,1:400)=s10;x(191,1:400)=t1;x(192,1:400)=t2;
x(193,1:400)=t3;x(194,1:400)=t4;x(195,1:400)=t5;x(196,1:400)=t6;
x(197,1:400)=t7;x(198,1:400)=t8;x(199,1:400)=t9;x(200,1:400)=t10;
x(201,1:400)=u1;x(202,1:400)=u2;x(203,1:400)=u3;x(204,1:400)=u4;
x(205,1:400)=u5;x(206,1:400)=u6;x(207,1:400)=u7;x(208,1:400)=u8;
x(209,1:400)=u9;x(210,1:400)=u10;x(211,1:400)=v1;x(212,1:400)=v2;
x(213,1:400)=v3;x(214,1:400)=v4;x(215,1:400)=v5;x(216,1:400)=v6;
x(217,1:400)=v7;x(218,1:400)=v8;x(219,1:400)=v9;x(220,1:400)=v10;
x(221,1:400)=w1;x(222,1:400)=w2;x(223,1:400)=w3;x(224,1:400)=w4;
x(225,1:400)=w5;x(226,1:400)=w6;x(227,1:400)=w7;x(228,1:400)=w8;
x(229,1:400)=w9;x(230,1:400)=w10;x(231,1:400)=x1;x(232,1:400)=x2;
x(233,1:400)=x3;x(234,1:400)=x4;x(235,1:400)=x5;x(236,1:400)=x6;
x(237,1:400)=x7;x(238,1:400)=x8;x(239,1:400)=x9;x(240,1:400)=x10;
x(241,1:400)=y1;x(242,1:400)=y2;x(243,1:400)=y3;x(244,1:400)=y4;
x(245,1:400)=y5;x(246,1:400)=y6;x(247,1:400)=y7;x(248,1:400)=y8;
x(249,1:400)=y9;x(250,1:400)=y10;x(251,1:400)=z1;x(252,1:400)=z2;
x(253,1:400)=z3;x(254,1:400)=z4;x(255,1:400)=z5;x(256,1:400)=z6;
x(257,1:400)=z7;x(258,1:400)=z8;x(259,1:400)=z9;x(260,1:400)=z10;
x(261,1:400)=a11;x(262,1:400)=a12;x(263,1:400)=a13;
x(264,1:400)=a14;x(265,1:400)=a15;x(266,1:400)=b11;
x(267,1:400)=b12;x(268,1:400)=b13;x(269,1:400)=b14;
x(270,1:400)=b15;x(271,1:400)=c11;x(272,1:400)=c12;
x(273,1:400)=c13;x(274,1:400)=c14;x(275,1:400)=c15;
x(276,1:400)=d11;x(277,1:400)=d12;x(278,1:400)=d13;
x(279,1:400)=d14;x(280,1:400)=d15;x(281,1:400)=e11;
x(282,1:400)=e12;x(283,1:400)=e13;x(284,1:400)=e14;
x(285,1:400)=e15;x(286,1:400)=f11;x(287,1:400)=f12;
x(288,1:400)=f13;x(289,1:400)=f14;x(290,1:400)=f15;
x(291,1:400)=g11;x(292,1:400)=g12;x(293,1:400)=g13;
x(294,1:400)=g14;x(295,1:400)=g15;x(296,1:400)=h11;
x(297,1:400)=h12;x(298,1:400)=h13;x(299,1:400)=h14;
x(300,1:400)=h15;x(301,1:400)=i11;x(302,1:400)=i12;
x(303,1:400)=i13;x(304,1:400)=i14;x(305,1:400)=i15;
x(306,1:400)=j11;x(307,1:400)=j12;x(308,1:400)=j13;
x(309,1:400)=j14;x(310,1:400)=j15;x(311,1:400)=k11;
x(312,1:400)=k12;x(313,1:400)=k13;x(314,1:400)=k14;
x(315,1:400)=k15;x(316,1:400)=l11;x(317,1:400)=l12;
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x(318,1:400)=l13;x(319,1:400)=l14;x(320,1:400)=l15;
x(321,1:400)=m11;x(322,1:400)=m12;x(323,1:400)=m13;
x(324,1:400)=m14;x(325,1:400)=m15;x(326,1:400)=n11;
x(327,1:400)=n12;x(328,1:400)=n13;x(329,1:400)=n14;
x(330,1:400)=n15;x(331,1:400)=o11;x(332,1:400)=o12;
x(333,1:400)=o13;x(334,1:400)=o14;x(335,1:400)=o15;
x(336,1:400)=p11;x(337,1:400)=p12;x(338,1:400)=p13;
x(339,1:400)=p14;x(340,1:400)=p15;x(341,1:400)=q11;
x(342,1:400)=q12;x(343,1:400)=q13;x(344,1:400)=q14;
x(345,1:400)=q15;x(346,1:400)=r11;x(347,1:400)=r12;
x(348,1:400)=r13;x(349,1:400)=r14;x(350,1:400)=r15;
x(351,1:400)=s11;x(352,1:400)=s12;x(353,1:400)=s13;
x(354,1:400)=s14;x(355,1:400)=s15;x(356,1:400)=t11;
x(357,1:400)=t12;x(358,1:400)=t13;x(359,1:400)=t14;
x(360,1:400)=t15;x(361,1:400)=u11;x(362,1:400)=u12;
x(363,1:400)=u13;x(364,1:400)=u14;x(365,1:400)=u15;
x(366,1:400)=v11;x(367,1:400)=v12;x(368,1:400)=v13;
x(369,1:400)=v14;x(370,1:400)=v15;x(371,1:400)=w11;
x(372,1:400)=w12;x(373,1:400)=w13;x(374,1:400)=w14;
x(375,1:400)=w15;x(376,1:400)=x11;x(377,1:400)=x12;
x(378,1:400)=x13;x(379,1:400)=x14;x(380,1:400)=x15;
x(381,1:400)=y11;x(382,1:400)=y12;x(383,1:400)=y13;
x(384,1:400)=y14;x(385,1:400)=y15;x(386,1:400)=z11;
x(387,1:400)=z12;x(388,1:400)=z13;x(389,1:400)=z14;
x(390,1:400)=z15;

%Proses Bipolar
for k=1:390
    for i=1:400
        if x(k,i)>0
            x(k,i)=1;
        else x(k,i)=-1;
        end
    end
end

a1=x(1,1:400);a2=x(2,1:400);a3=x(3,1:400);a4=x(4,1:400);
a5=x(5,1:400);a6=x(6,1:400);a7=x(7,1:400);a8=x(8,1:400);
a9=x(9,1:400);a10=x(10,1:400);b1=x(11,1:400);b2=x(12,1:400);
b3=x(13,1:400);b4=x(14,1:400);b5=x(15,1:400);b6=x(16,1:400);
b7=x(17,1:400);b8=x(18,1:400);b9=x(19,1:400);b10=x(20,1:400);
c1=x(21,1:400);c2=x(22,1:400);c3=x(23,1:400);c4=x(24,1:400);
c5=x(25,1:400);c6=x(26,1:400);c7=x(27,1:400);c8=x(28,1:400);
c9=x(29,1:400);c10=x(30,1:400);d1=x(31,1:400);d2=x(32,1:400);
d3=x(33,1:400);d4=x(34,1:400);d5=x(35,1:400);d6=x(36,1:400);
d7=x(37,1:400);d8=x(38,1:400);d9=x(39,1:400);d10=x(40,1:400);
e1=x(41,1:400);e2=x(42,1:400);e3=x(43,1:400);e4=x(44,1:400);
e5=x(45,1:400);e6=x(46,1:400);e7=x(47,1:400);e8=x(48,1:400);
e9=x(49,1:400);e10=x(50,1:400);f1=x(51,1:400);f2=x(52,1:400);
f3=x(53,1:400);f4=x(54,1:400);f5=x(55,1:400);f6=x(56,1:400);
f7=x(57,1:400);f8=x(58,1:400);f9=x(59,1:400);f10=x(60,1:400);
g1=x(61,1:400);g2=x(62,1:400);g3=x(63,1:400);g4=x(64,1:400);
g5=x(65,1:400);g6=x(66,1:400);g7=x(67,1:400);g8=x(68,1:400);
g9=x(69,1:400);g10=x(70,1:400);h1=x(71,1:400);h2=x(72,1:400);
h3=x(73,1:400);h4=x(74,1:400);h5=x(75,1:400);h6=x(76,1:400);
h7=x(77,1:400);h8=x(78,1:400);h9=x(79,1:400);h10=x(80,1:400);
i1=x(81,1:400);i2=x(82,1:400);i3=x(83,1:400);i4=x(84,1:400);
```

```
i5=x(85,1:400);i6=x(86,1:400);i7=x(87,1:400);i8=x(88,1:400);
i9=x(89,1:400);i10=x(90,1:400);j1=x(91,1:400);j2=x(92,1:400);
j3=x(93,1:400);j4=x(94,1:400);j5=x(95,1:400);j6=x(96,1:400);
j7=x(97,1:400);j8=x(98,1:400);j9=x(99,1:400);j10=x(100,1:400);
k1=x(101,1:400);k2=x(102,1:400);k3=x(103,1:400);k4=x(104,1:400);
k5=x(105,1:400);k6=x(106,1:400);k7=x(107,1:400);k8=x(108,1:400);
k9=x(109,1:400);k10=x(110,1:400);l1=x(111,1:400);l2=x(112,1:400);
l3=x(113,1:400);l4=x(114,1:400);l5=x(115,1:400);l6=x(116,1:400);
l7=x(117,1:400);l8=x(118,1:400);l9=x(119,1:400);l10=x(120,1:400);
m1=x(121,1:400);m2=x(122,1:400);m3=x(123,1:400);m4=x(124,1:400);
m5=x(125,1:400);m6=x(126,1:400);m7=x(127,1:400);m8=x(128,1:400);
m9=x(129,1:400);m10=x(130,1:400);n1=x(131,1:400);n2=x(132,1:400);
n3=x(133,1:400);n4=x(134,1:400);n5=x(135,1:400);n6=x(136,1:400);
n7=x(137,1:400);n8=x(138,1:400);n9=x(139,1:400);n10=x(140,1:400);
o1=x(141,1:400);o2=x(142,1:400);o3=x(143,1:400);o4=x(144,1:400);
o5=x(145,1:400);o6=x(146,1:400);o7=x(147,1:400);o8=x(148,1:400);
o9=x(149,1:400);o10=x(150,1:400);p2=x(152,1:400);p3=x(153,1:400);
p4=x(154,1:400);p5=x(155,1:400);p6=x(156,1:400);p7=x(157,1:400);
p8=x(158,1:400);p9=x(159,1:400);p10=x(160,1:400);q1=x(161,1:400);
q2=x(162,1:400);q3=x(163,1:400);q4=x(164,1:400);q5=x(165,1:400);
q6=x(166,1:400);q7=x(167,1:400);q8=x(168,1:400);q9=x(169,1:400);
q10=x(170,1:400);r1=x(171,1:400);r2=x(172,1:400);r3=x(173,1:400);
r4=x(174,1:400);r5=x(175,1:400);r6=x(176,1:400);r7=x(177,1:400);
r8=x(178,1:400);r9=x(179,1:400);r10=x(180,1:400);s1=x(181,1:400);
s2=x(182,1:400);s3=x(183,1:400);s4=x(184,1:400);s5=x(185,1:400);
s6=x(186,1:400);s7=x(187,1:400);s8=x(188,1:400);s9=x(189,1:400);
s10=x(190,1:400);t1=x(191,1:400);t2=x(192,1:400);t3=x(193,1:400);
t4=x(194,1:400);t5=x(195,1:400);t6=x(196,1:400);t7=x(197,1:400);
t8=x(198,1:400);t9=x(199,1:400);t10=x(200,1:400);u1=x(201,1:400);
u2=x(202,1:400);u3=x(203,1:400);u4=x(204,1:400);u5=x(205,1:400);
u6=x(206,1:400);u7=x(207,1:400);u8=x(208,1:400);u9=x(209,1:400);
u10=x(210,1:400);v1=x(211,1:400);v2=x(212,1:400);v3=x(213,1:400);
v4=x(214,1:400);v5=x(215,1:400);v6=x(216,1:400);v7=x(217,1:400);
v8=x(218,1:400);v9=x(219,1:400);v10=x(220,1:400);w1=x(221,1:400);
w2=x(222,1:400);w3=x(223,1:400);w4=x(224,1:400);w5=x(225,1:400);
w6=x(226,1:400);w7=x(227,1:400);w8=x(228,1:400);w9=x(229,1:400);
w10=x(230,1:400);x1=x(231,1:400);x2=x(232,1:400);x3=x(233,1:400);
x4=x(234,1:400);x5=x(235,1:400);x6=x(236,1:400);x7=x(237,1:400);
x8=x(238,1:400);x9=x(239,1:400);x10=x(240,1:400);y1=x(241,1:400);
y2=x(242,1:400);y3=x(243,1:400);y4=x(244,1:400);y5=x(245,1:400);
y6=x(246,1:400);y7=x(247,1:400);y8=x(248,1:400);y9=x(249,1:400);
y10=x(250,1:400);z1=x(251,1:400);z2=x(252,1:400);z3=x(253,1:400);
z4=x(254,1:400);z5=x(255,1:400);z6=x(256,1:400);z7=x(257,1:400);
z8=x(258,1:400);z9=x(259,1:400);z10=x(260,1:400);a11=x(261,1:400);
a12=x(262,1:400);a13=x(263,1:400);a14=x(264,1:400);
a15=x(265,1:400);b11=x(266,1:400);b12=x(267,1:400);
b13=x(268,1:400);b14=x(269,1:400);b15=x(270,1:400);
c11=x(271,1:400);c12=x(272,1:400);c13=x(273,1:400);
c14=x(274,1:400);c15=x(275,1:400);d11=x(276,1:400);
d12=x(277,1:400);d13=x(278,1:400);d14=x(279,1:400);
d15=x(280,1:400);e11=x(281,1:400);e12=x(282,1:400);
e13=x(283,1:400);e14=x(284,1:400);e15=x(285,1:400);
f11=x(286,1:400);f12=x(287,1:400);f13=x(288,1:400);
f14=x(289,1:400);f15=x(290,1:400);g11=x(291,1:400);
g12=x(292,1:400);g13=x(293,1:400);g14=x(294,1:400);
g15=x(295,1:400);h11=x(296,1:400);h12=x(297,1:400);
h13=x(298,1:400);h14=x(299,1:400);h15=x(300,1:400);
i11=x(301,1:400);i12=x(302,1:400);i13=x(303,1:400);
```

```
i14=x(304,1:400);i15=x(305,1:400);j11=x(306,1:400);
j12=x(307,1:400);j13=x(308,1:400);j14=x(309,1:400);
j15=x(310,1:400);k11=x(311,1:400);k12=x(312,1:400);
k13=x(313,1:400);k14=x(314,1:400);k15=x(315,1:400);
l11=x(316,1:400);l12=x(317,1:400);l13=x(318,1:400);
l14=x(319,1:400);l15=x(320,1:400);m11=x(321,1:400);
m12=x(322,1:400);m13=x(323,1:400);m14=x(324,1:400);
m15=x(325,1:400);n11=x(326,1:400);n12=x(327,1:400);
n13=x(328,1:400);n14=x(329,1:400);n15=x(330,1:400);
o11=x(331,1:400);o12=x(332,1:400);o13=x(333,1:400);
o14=x(334,1:400);o15=x(335,1:400);p11=x(336,1:400);
p12=x(337,1:400);p13=x(338,1:400);p14=x(339,1:400);
p15=x(340,1:400);q11=x(341,1:400);q12=x(342,1:400);
q13=x(343,1:400);q14=x(344,1:400);q15=x(345,1:400);
r11=x(346,1:400);r12=x(347,1:400);r13=x(348,1:400);
r14=x(349,1:400);r15=x(350,1:400);s11=x(351,1:400);
s12=x(352,1:400);s13=x(353,1:400);s14=x(354,1:400);
s15=x(355,1:400);t11=x(356,1:400);t12=x(357,1:400);
t13=x(358,1:400);t14=x(359,1:400);t15=x(360,1:400);
u11=x(361,1:400);u12=x(362,1:400);u13=x(363,1:400);
u14=x(364,1:400);u15=x(365,1:400);v11=x(366,1:400);
v12=x(367,1:400);v13=x(368,1:400);v14=x(369,1:400);
v15=x(370,1:400);w11=x(371,1:400);w12=x(372,1:400);
w13=x(373,1:400);w14=x(374,1:400);w15=x(375,1:400);
x11=x(376,1:400);x12=x(377,1:400);x13=x(378,1:400);
x14=x(379,1:400);x15=x(380,1:400);y11=x(381,1:400);
y12=x(382,1:400);y13=x(383,1:400);y14=x(384,1:400);
y15=x(385,1:400);z11=x(386,1:400);z12=x(387,1:400);
z13=x(388,1:400);z14=x(389,1:400);z15=x(390,1:400);


A=[transpose(a1),transpose(a2),transpose(a3),transpose(a4),transpo
se(a5),transpose(a6),transpose(a7),transpose(a8),transpose(a9),tra
nspose(a10),transpose(b1),transpose(b2),transpose(b3),transpose(b4
),transpose(b5),transpose(b6),transpose(b7),transpose(b8),transpos
e(b9),transpose(b10),transpose(c1),transpose(c2),transpose(c3),tra
nspose(c4),transpose(c5),transpose(c6),transpose(c7),transpose(c8)
,transpose(c9),transpose(c10),transpose(d1),transpose(d2),transpos
e(d3),transpose(d4),transpose(d5),transpose(d6),transpose(d7),tran
spose(d8),transpose(d9),transpose(d10),transpose(e1),transpose(e2)
,transpose(e3),transpose(e4),transpose(e5),transpose(e6),transpose
(e7),transpose(e8),transpose(e9),transpose(e10),transpose(f1),tran
spose(f2),transpose(f3),transpose(f4),transpose(f5),transpose(f6),
transpose(f7),transpose(f8),transpose(f9),transpose(f10),transpose
(g1),transpose(g2),transpose(g3),transpose(g4),transpose(g5),trans
pose(g6),transpose(g7),transpose(g8),transpose(g9),transpose(g10),
transpose(h1),transpose(h2),transpose(h3),transpose(h4),transpose(
h5),transpose(h6),transpose(h7),transpose(h8),transpose(h9),transp
ose(h10),transpose(i1),transpose(i2),transpose(i3),transpose(i4),t
ranspose(i5),transpose(i6),transpose(i7),transpose(i8),transpose(i
9),transpose(i10),transpose(j1),transpose(j2),transpose(j3),transp
ose(j4),transpose(j5),transpose(j6),transpose(j7),transpose(j8),tr
anspose(j9),transpose(j10),transpose(k1),transpose(k2),transpose(k
3),transpose(k4),transpose(k5),transpose(k6),transpose(k7),transpo
se(k8),transpose(k9),transpose(k10),transpose(l1),transpose(l2),tr
anspose(l3),transpose(l4),transpose(l5),transpose(l6),transpose(l7
),transpose(l8),transpose(l9),transpose(l10),transpose(m1),transpo
se(m2),transpose(m3),transpose(m4),transpose(m5),transpose(m6),tra
```

nspose(m7),transpose(m8),transpose(m9),transpose(m10),transpose(n1
),transpose(n2),transpose(n3),transpose(n4),transpose(n5),transpos
e(n6),transpose(n7),transpose(n8),transpose(n9),transpose(n10),tra
nspose(o1),transpose(o2),transpose(o3),transpose(o4),transpose(o5)
,transpose(o6),transpose(o7),transpose(o8),transpose(o9),transpose
(o10),transpose(p1),transpose(p2),transpose(p3),transpose(p4),tran
spose(p5),transpose(p6),transpose(p7),transpose(p8),transpose(p9),
transpose(p10),transpose(q1),transpose(q2),transpose(q3),transpose
(q4),transpose(q5),transpose(q6),transpose(q7),transpose(q8),trans
pose(q9),transpose(q10),transpose(r1),transpose(r2),transpose(r3),
transpose(r4),transpose(r5),transpose(r6),transpose(r7),transpose(
r8),transpose(r9),transpose(r10),transpose(s1),transpose(s2),trans
pose(s3),transpose(s4),transpose(s5),transpose(s6),transpose(s7),t
ranspose(s8),transpose(s9),transpose(s10),transpose(t1),transpose(
t2),transpose(t3),transpose(t4),transpose(t5),transpose(t6),transp
ose(t7),transpose(t8),transpose(t9),transpose(t10),transpose(u1),t
ranspose(u2),transpose(u3),transpose(u4),transpose(u5),transpose(u
6),transpose(u7),transpose(u8),transpose(u9),transpose(u10),transp
ose(v1),transpose(v2),transpose(v3),transpose(v4),transpose(v5),tr
anspose(v6),transpose(v7),transpose(v8),transpose(v9),transpose(v1
0),transpose(w1),transpose(w2),transpose(w3),transpose(w4),transpo
se(w5),transpose(w6),transpose(w7),transpose(w8),transpose(w9),tra
nspose(w10),transpose(x1),transpose(x2),transpose(x3),transpose(x4
),transpose(x5),transpose(x6),transpose(x7),transpose(x8),transpos
e(x9),transpose(x10),transpose(y1),transpose(y2),transpose(y3),tra
nspose(y4),transpose(y5),transpose(y6),transpose(y7),transpose(y8)
,transpose(y9),transpose(y10),transpose(z1),transpose(z2),transpos
e(z3),transpose(z4),transpose(z5),transpose(z6),transpose(z7),tran
spose(z8),transpose(z9),transpose(z10),transpose(a11),transpose(a1
2),transpose(a13),transpose(a14),transpose(a15),transpose(b11),tra
nspose(b12),transpose(b13),transpose(b14),transpose(b15),transpose
(c11),transpose(c12),transpose(c13),transpose(c14),transpose(c15),
transpose(d11),transpose(d12),transpose(d13),transpose(d14),transp
ose(d15),transpose(e11),transpose(e12),transpose(e13),transpose(e1
4),transpose(e15),transpose(f11),transpose(f12),transpose(f13),tra
nspose(f14),transpose(f15),transpose(g11),transpose(g12),transpose
(g13),transpose(g14),transpose(g15),transpose(h11),transpose(h12),
transpose(h13),transpose(h14),transpose(h15),transpose(i11),transp
ose(i12),transpose(i13),transpose(i14),transpose(i15),transpose(j1
1),transpose(j12),transpose(j13),transpose(j14),transpose(j15),tra
nspose(k11),transpose(k12),transpose(k13),transpose(k14),transpose
(k15),transpose(l11),transpose(l12),transpose(l13),transpose(l14),
transpose(l15),transpose(m11),transpose(m12),transpose(m13),transp
ose(m14),transpose(m15),transpose(n11),transpose(n12),transpose(n1
3),transpose(n14),transpose(n15),transpose(o11),transpose(o12),tra
nspose(o13),transpose(o14),transpose(o15),transpose(p11),transpose
(p12),transpose(p13),transpose(p14),transpose(p15),transpose(q11),
transpose(q12),transpose(q13),transpose(q14),transpose(q15),transp
ose(r11),transpose(r12),transpose(r13),transpose(r14),transpose(r1
5),transpose(s11),transpose(s12),transpose(s13),transpose(s14),tra
nspose(s15),transpose(t11),transpose(t12),transpose(t13),transpose
(t14),transpose(t15),transpose(u11),transpose(u12),transpose(u13),
transpose(u14),transpose(u15),transpose(v11),transpose(v12),transp
ose(v13),transpose(v14),transpose(v15),transpose(w11),transpose(w1
2),transpose(w13),transpose(w14),transpose(w15),transpose(x11),tra
nspose(x12),transpose(x13),transpose(x14),transpose(x15),transpose
(y11),transpose(y12),transpose(y13),transpose(y14),transpose(y15),

```matlab
transpose(z11),transpose(z12),transpose(z13),transpose(z14),transp
ose(z15)];

Yt = sim(net,A);
Y = vec2ind(Yt)

r = rand(1,JumlahKlas);
g = rand(1,JumlahKlas);
b = rand(1,JumlahKlas);
for i=1:size(P,2),
for j=1:JumlahKlas,
if H(i)==j,
plot(P(1,i),P(2,i),'marker','*','color',[r(j) g(j) b(j)]);
hold on;
plot(net.IW{1,1}(j,1),net.IW{1,1}(j,2),'marker','o','color',[r(j)
g(j) b(j)]);
text(net.IW{1,1}(j,1)+.1,net.IW{1,1}(j,2)+.1,int2str(j));
end;
end;
end;
for i=1:size(A,2),
for j=1:JumlahKlas,
if Y(i)==j,
plot(A(1,i),A(2,i),'marker','+','color',[r(j) g(j) b(j)]);
end;
end;
end;
title('Hasil Pelatihan dengan Algoritma Counterpropagation (*:
data training)(o: bobot)(+: data testing)');
xlabel('Var-1'); ylabel('Var-2');




% --- Executes on button press in btnklr.
function btnklr_Callback(hObject, eventdata, handles)
% hObject    handle to btnklr (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
close;

function edit1_Callback(hObject, eventdata, handles)
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit1 as text
%        str2double(get(hObject,'String')) returns contents of
edit1 as a double


% --- Executes during object creation, after setting all
properties.
function edit1_CreateFcn(hObject, eventdata, handles)
```

```matlab
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end




% --- Executes on selection change in popup1.
function popup1_Callback(hObject, eventdata, handles)
% hObject    handle to popup1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: contents = get(hObject,'String') returns popup1 contents
as cell array
%        contents{get(hObject,'Value')} returns selected item from
popup1


% --- Executes during object creation, after setting all
properties.
function popup1_CreateFcn(hObject, eventdata, handles)
% hObject    handle to popup1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: popupmenu controls usually have a white background on
Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end




% --- Executes on selection change in popup2.
function popup2_Callback(hObject, eventdata, handles)
% hObject    handle to popup2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
```

```matlab
% Hints: contents = get(hObject,'String') returns popup2 contents
as cell array
%        contents{get(hObject,'Value')} returns selected item from
popup2


% --- Executes during object creation, after setting all
properties.
function popup2_CreateFcn(hObject, eventdata, handles)
% hObject    handle to popup2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: popupmenu controls usually have a white background on
Windows.
%        See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end




% --- Executes on selection change in popup3.
function popup3_Callback(hObject, eventdata, handles)
% hObject    handle to popup3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: contents = get(hObject,'String') returns popup3 contents
as cell array
%        contents{get(hObject,'Value')} returns selected item from
popup3


% --- Executes during object creation, after setting all
properties.
function popup3_CreateFcn(hObject, eventdata, handles)
% hObject    handle to popup3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: popupmenu controls usually have a white background on
Windows.
%        See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end
```