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21BRS1105
MATLAB ASS -1

Write the MATLAB Code for the area between the region bounded above by the graph of the function f(x)=9−(x/2)2 and below by the graph of the function g(x)=6−x

```matlab
%Assignment-1
%Write the MATLAB Code for the area between the region
bounded above by the graph of the function
%f(x)=9?(x/2)2 and below by the graph of the function
g(x)=6?x

syms x y real
y1=9-(x/2)^2;
y2=6-x;
t=solve(y1-y2);

kokler=double(t);
n=length(kokler);
m1=min(kokler);
m2=max(kokler);
ez1=ezplot(y1,[m1-1,m2+1]);
hold on
ez2=ezplot(y2,[m1-1,m2+1]);
TA=0;
if n>2
    for i=1:n-1
a=int(y1-y2,t(i),t(i+1));
TA=TA+abs(A);
x1=linspace(kokler(i),kokler(i+1));
yy1=subs(y1,x,x1);
yy2=subs(y2,x,x1);
x1=[x1,fliplr(x1)];
yy=[yy1,fliplr(yy2)];
fill(x1,yy,'r')
grid on
    end
 else
  A=int(y1-y2,t(1),t(2));
  TA=abs(A);
  x1 = linspace(kokler(1),kokler(2));
  yy1 =subs(y1,x,x1);
  yy2 = subs(y2,x,x1);
  x1 = [x1,fliplr(x1)];
  yy = [yy1,fliplr(yy2)];
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    fill(x1,yy,'b')
end

xlabel('x-axis')
ylabel('y-axis')
legend('f(x)=9-(x/2)^2','g(x)=6-x')
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