```matlab
clear
clc
%This will ask the user to type in the height of the float, in meters.
h=input('Enter the height of the float in meters.');
if h<0
    %If the height typed in is lower than 0, an error will be displayed. This is
    %because the water tank cannot have a negative amount of water inside.
    error('Error. The height of the water cannot be below 0.');
elseif h>33
    %If the height typed in is above 33, an error will display. This is becasue
    %33 is the max height of the water tower, so if an h value above 33 is input,
    %the water tower would be overflowing.
    error('Error. The height of the water cannot be higher than 33, the maximum height');
elseif h>=0 && h<=19
    v=pi*((12.5)^2)*h;
    fprintf('The volume if the water tower is %8.3g cubic meters.\n',v);
else ,h>19 & h<=33;
    v=(pi*h)/3*((23)^2+(23*((10.5*(h-19))/14)+((10.5*(h-19))/14)^2));
    fprintf('The volume of the water tower is %8.3g cubic meters.\n',v);
end
```

    The volume if the water tower is 1.96e+03 cubic meters.