The region bounded by $y = x^3$ and $y = 4x$

a) Find the area between the 2 curves

b) Find the volume of the solid created using square Cross sections perpendicular to the x-axis

c) Find the volume of the solid created using square Cross sections perpendicular to the y-axis
The region bounded by $y = x^3$ and $y = 4x$

d) Find the volume of the solid created using isosceles right triangle Cross sections perpendicular to the $x$-axis

e) Find the volume of the solid created using isosceles right triangle Cross sections perpendicular to the $y$-axis

f) Find the volume of the solid created using semi-circle Cross sections perpendicular to the $y$-axis

g) Find the volume of the solid created using semi-circle Cross sections perpendicular to the $x$-axis
The region bounded by \( y = x^3 \) and \( y = 4x \)

h) Find the volume of the solid revolved Around the x-axis

i) Find the volume of the solid revolved Around the y-axis
The region bounded by $y = x^3$ and $y = 4x$

j) Find the volume of the solid revolved around the line $x = 4$

k) Find the volume of the solid revolved around the line $y = -2$

k) Find the perimeter of the region enclosed by the functions $y = x^3$ and $y = 4x$