(C1-4.5) Name:

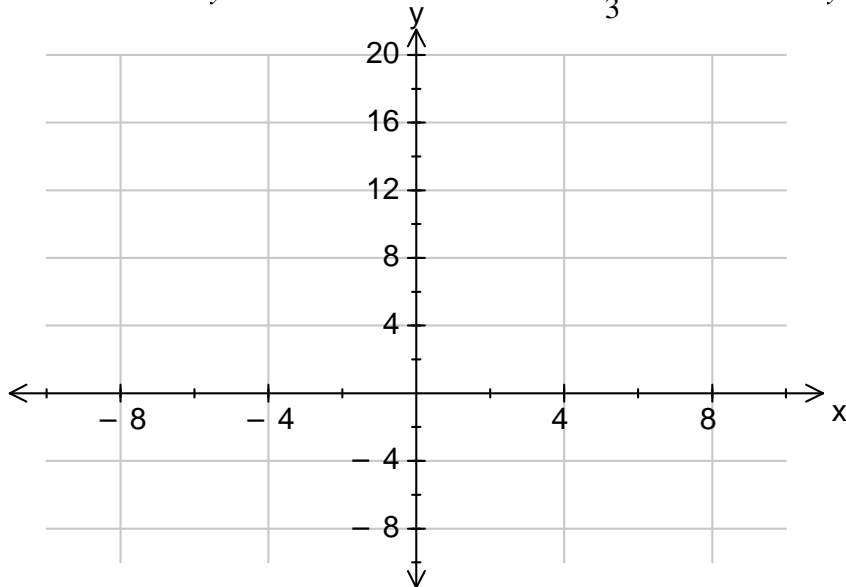## <u>Homework Questions 5 – Parabola Graphs</u>

1. Plot the following graphs on the axis below

a) $y = x^2$ b) $y = -x^2 + 2$ c) $y = \frac{1}{3}x^2$ d) $y = (x - 3)^2$

2. Find the y intercept of the following graphs

a) $y = x^2 - 6$

Y intercept =

b) $y = (x - 3)^2$

Y intercept =

c) $y = -x^2 + 2$

Y intercept =

d) $y = -(x + 1)^2 + 3$

Y intercept =

3. Find the x intercept of the following graphs

a) $y = (x + 3)(x - 6)$

X intercept =

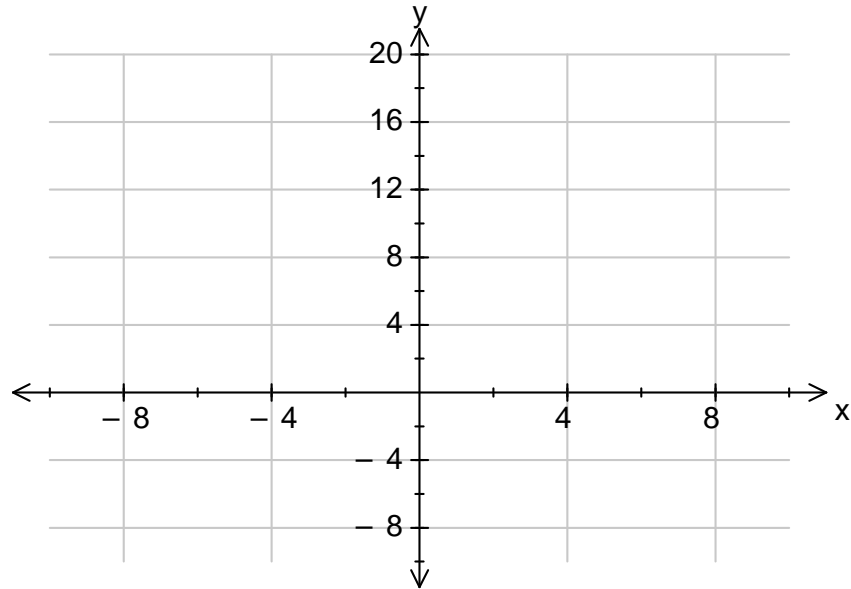b) $y = x(x + 9)$

X intercept =

c) $y = x^2 + 7x + 12$
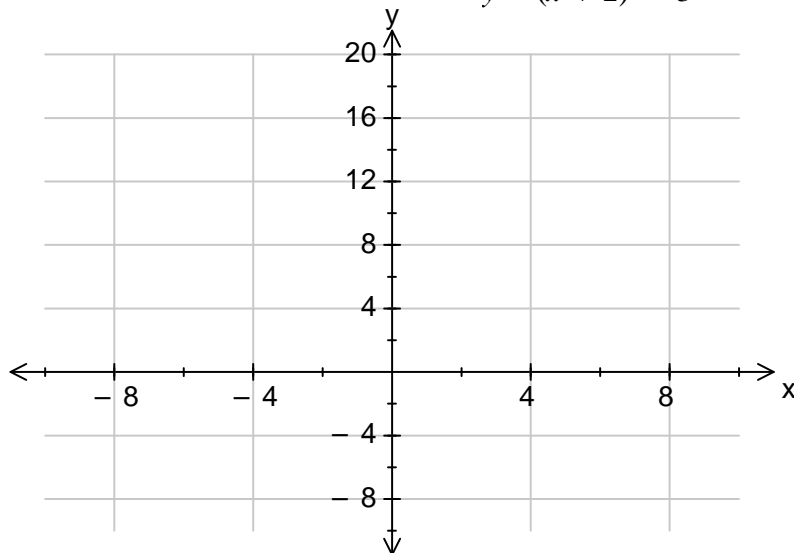
X intercept =

d) $y = 3x^2 + 10x - 8$

X intercept =

4. Draw the graph and state the special features of $y = 2x^2 - 3$

Special Features

5. Draw the graph and state the special features of $y = (x + 2)^2 - 3$

Special Features