

(C1-4.5) Name:

Homework Questions 5 – Parabola Graphs

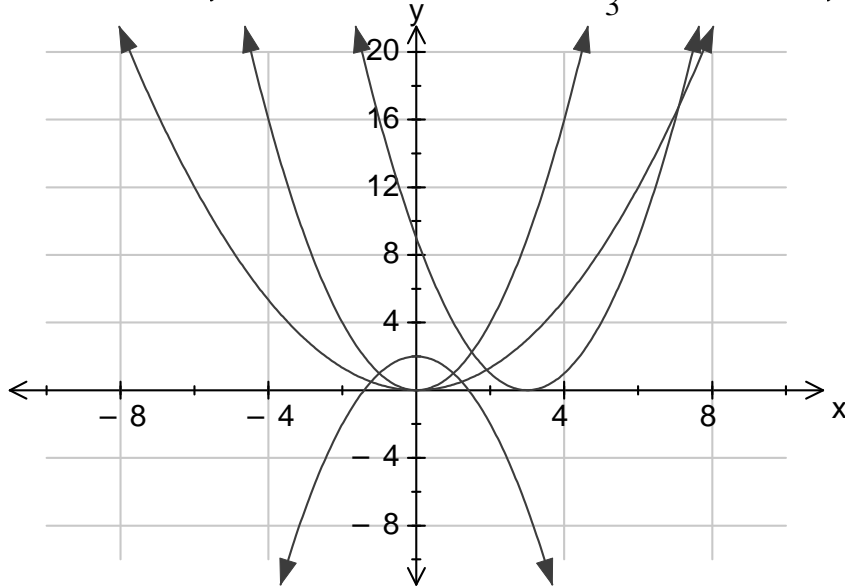
1. Plot the following graphs on the axis below

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 = -6

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

Y intercept = 9

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

Y intercept = 2

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

Y intercept = 2

3. Find the x intercept of the following graphs

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

X intercept = -3, 6

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

X intercept = 0, -9

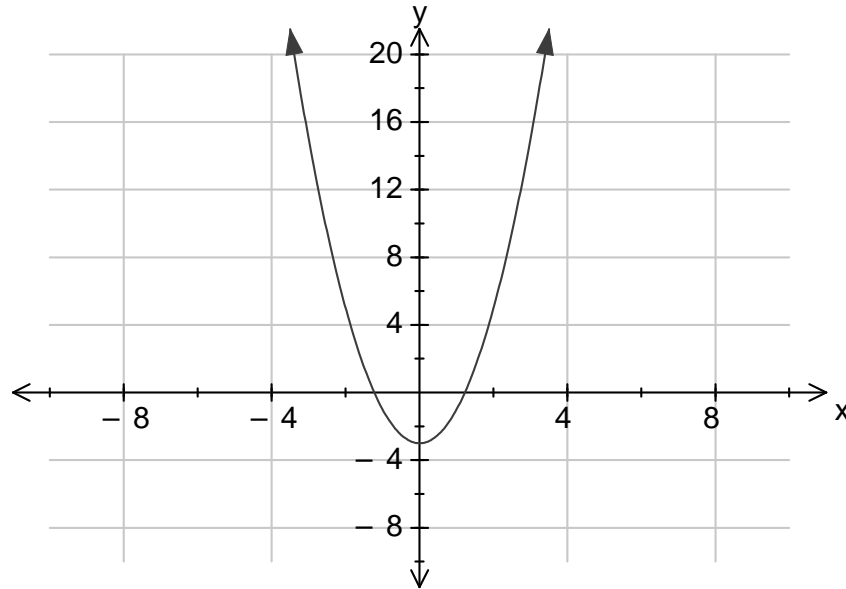
c) $y = x^2 + 7x + 12$

X intercept = -3, -4

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

X intercept = -4, 0.67

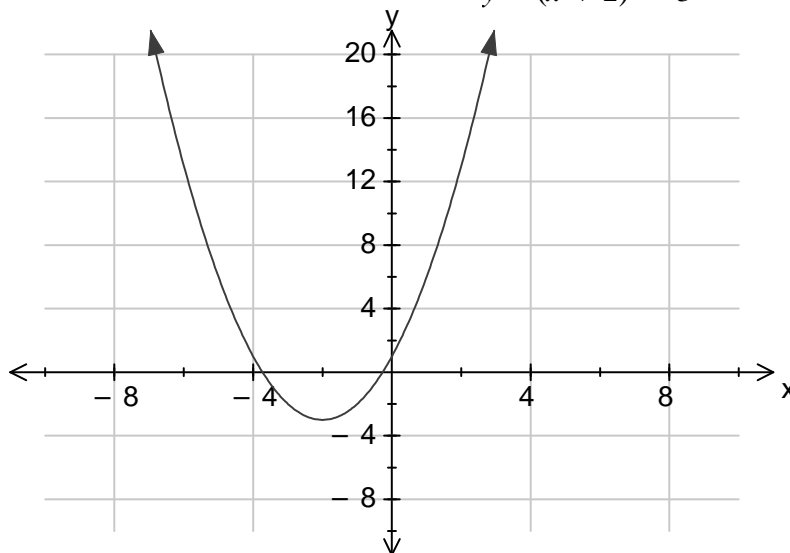
4. Draw the graph and state the special features of $y = 2x^2 - 3$



Special Features

Min TP (0,-3) Intersection (-1.2, 0) (1.2, 0) (0, -3) Line of symmetry $x=0$

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



Special Features

Min TP (-2,-3) Intersection (-3.73,0) (-0.27, 0) (0,1) Line of symmetry $x = -2$