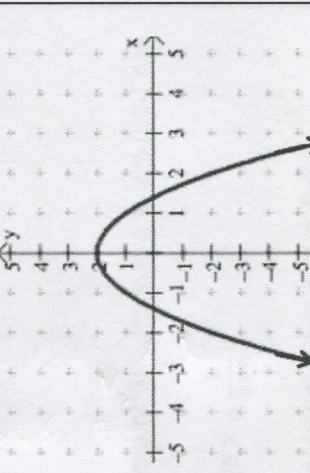


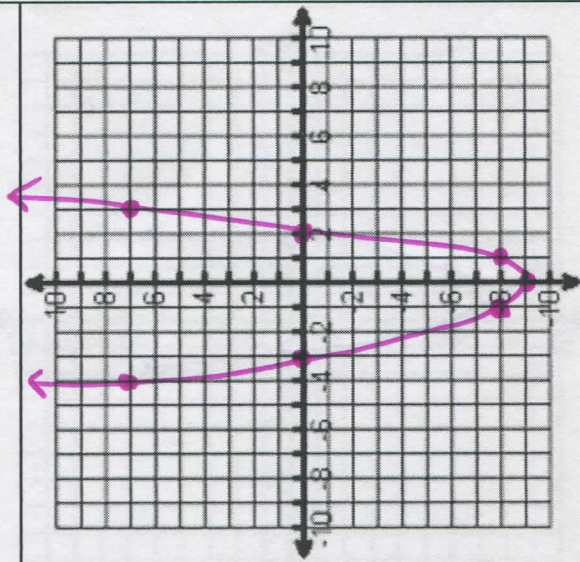
TASK 6: $y = x^2 - 3$
 Vertex: (0, -3)
 Max or Min Value: -3
 Roots: $x = \pm\sqrt{3}$
 Axis of Symmetry: $x = 0$
 Domain: $(-\infty, \infty)$
 Range: $[-3, \infty)$



TASK 7: $y = -x^2 + 2$
 Vertex: (0, 2)
 Max or Min Value: 2
 Roots: $x = \pm\sqrt{2}$
 Axis of Symmetry: $x = 0$
 Domain: $(-\infty, \infty)$
 Range: $(-\infty, 2]$

TASK 8: $y = x^2 - 9$

X	Process	Y
-4	$(-4)^2 - 9$	7
-3	$(-3)^2 - 9$	0
-1	$(-1)^2 - 9$	-8
0	$(0)^2 - 9$	-9
1	$(1)^2 - 9$	-8
3	$(3)^2 - 9$	0
4	$(4)^2 - 9$	7



Roots: $x = \pm 3$
 y-intercept: (0, -9)
 Up or Down: Down
 Max or Min: Min
 Vertex: (0, -9)
 Axis of Symmetry: $x = 0$
 Domain: $(-\infty, \infty)$
 Range: $[-9, \infty)$

TASK 9: $y = -2x^2 + 4x + 6$

X	Process	Y
-2	$-2(-2)^2 + 4(-2) + 6$	-10
-1	$-2(-1)^2 + 4(-1) + 6$	0
0	$-2(0)^2 + 4(0) + 6$	6
1	$-2(1)^2 + 4(1) + 6$	8
2	$-2(2)^2 + 4(2) + 6$	6
3	$-2(3)^2 + 4(3) + 6$	0
4	$-2(4)^2 + 4(4) + 6$	-10

Roots: $x = -1, 3$

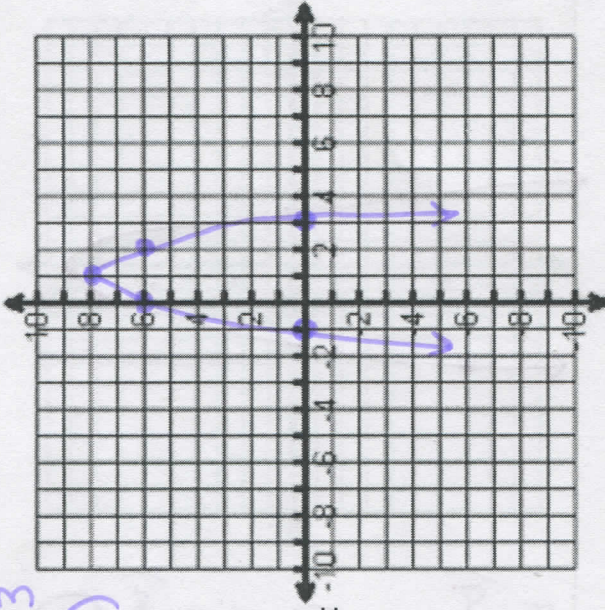
y-intercept: $(0, 6)$

Up or Down
Max or Min
Vertex: $(1, 8)$

Axis of Symmetry: $x = 1$

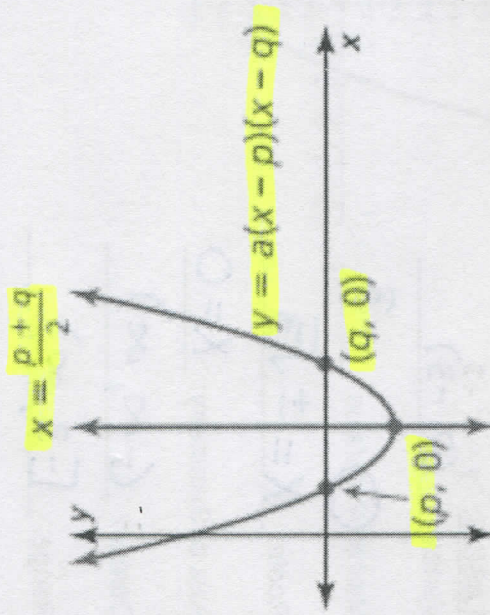
Domain: $(-\infty, \infty)$

Range: $(-\infty, 8]$



TASK 11: Factored Form or Intercept Form

- $f(x) = a(x - p)(x - q)$
- $(p, 0)$ and $(q, 0)$ are the x-intercepts of the graph
- The axis of symmetry is $x = \frac{p+q}{2}$
- If $a > 0$ then the parabola opens up and if $a < 0$ then the parabola opens down



Still need help with: