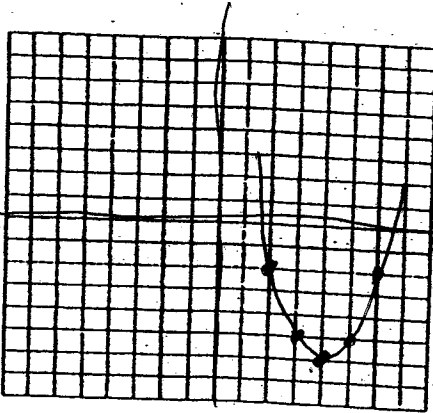


# Notes: Graphing $y = a(x-p)^2 + q$ (L6)

1.  $y = (x-4)^2 - 6$

vertex:  $(4, -6)$   
 axis of symmetry:  $x = 4$   
 opens: up  
 pattern: 1 1 2 4



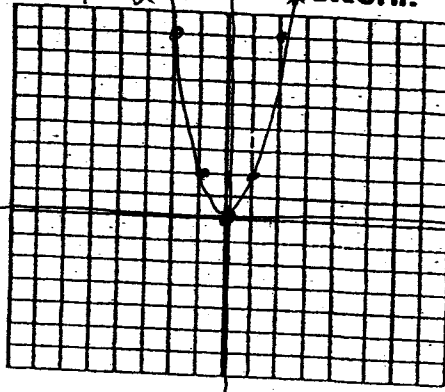
x intercept(s): \_\_\_\_\_

y intercept: \_\_\_\_\_

4.  $f(x) = 2x^2$

x	y
1	2
-1	2

vertex:  $(0, 0)$   
 axis of symmetry:  $x = 0$   
 opens: up  
 pattern: 1 2 2 8

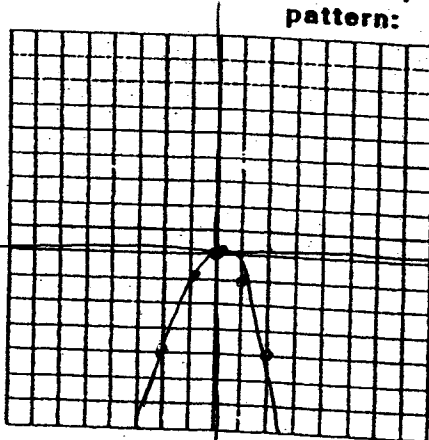


x intercept(s): \_\_\_\_\_

y intercept: \_\_\_\_\_

2.  $y = -x^2$

vertex:  $(0, 0)$   
 $y = -(x+0)^2 + 0$   
 axis of symmetry:  $x = 0$   
 opens: down  
 pattern: 1 -1 2 -4

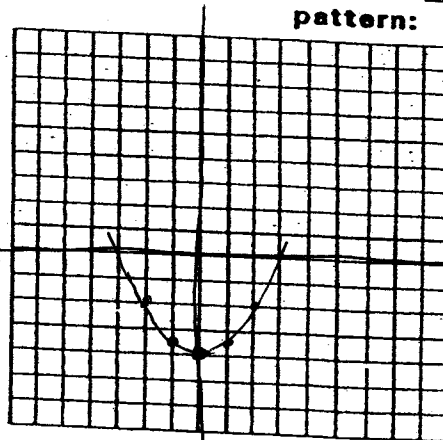


x intercept(s): \_\_\_\_\_

y intercept: \_\_\_\_\_

5.  $y = \frac{1}{2}x^2 - 4$

vertex:  $(0, -4)$   
 axis of symmetry:  $x = 0$   
 opens: up  
 pattern: 1 1/2 2 2

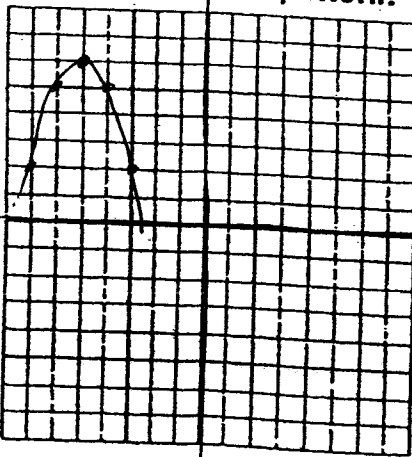


x intercept(s): \_\_\_\_\_

y intercept: \_\_\_\_\_

3.  $y = -(x+5)^2 + 6$

vertex:  $(-5, 6)$   
 axis of symmetry:  $x = -5$   
 opens: down  
 pattern: 1 -1 2 -4

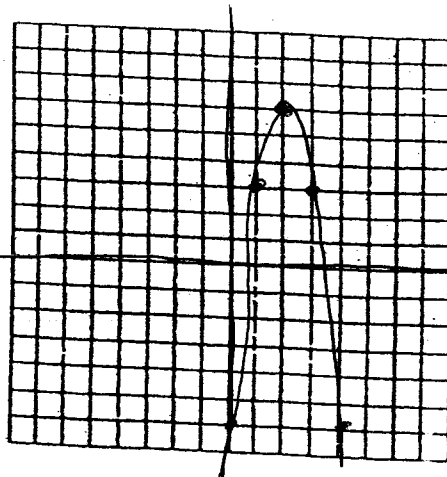


x intercept(s): \_\_\_\_\_

y intercept: \_\_\_\_\_

6.  $y = -3(x-2)^2 + 6$

vertex:  $(2, 6)$   
 axis of symmetry:  $x = 2$   
 opens: down  
 pattern: 1 -3 2 -12



x intercept(s): \_\_\_\_\_

y intercept: \_\_\_\_\_

x	y
1	-1
-1	-1