

NAME:

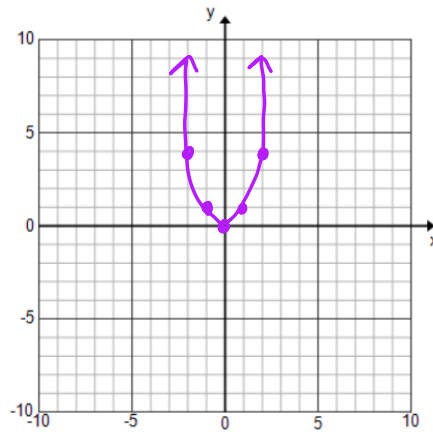
UNIT 8 DAY 4

BACK TO THE BASICS – RECAP OF GRAPHING QUADRATICS



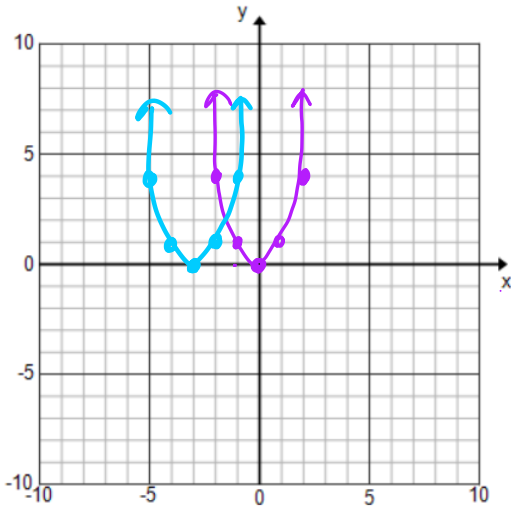
Key

Graph the Parent Function ( $y = x^2$ )

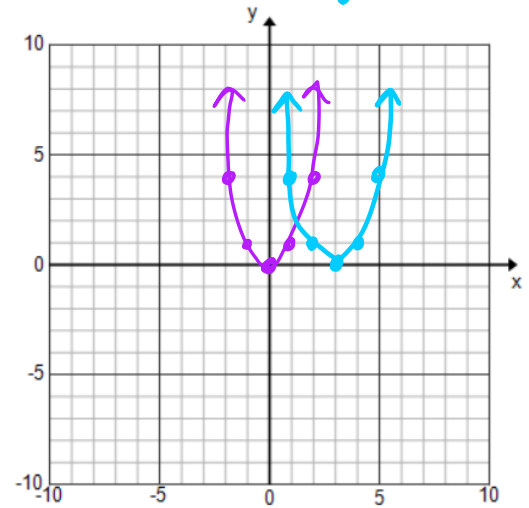


First, describe the transformation. Then graph it.

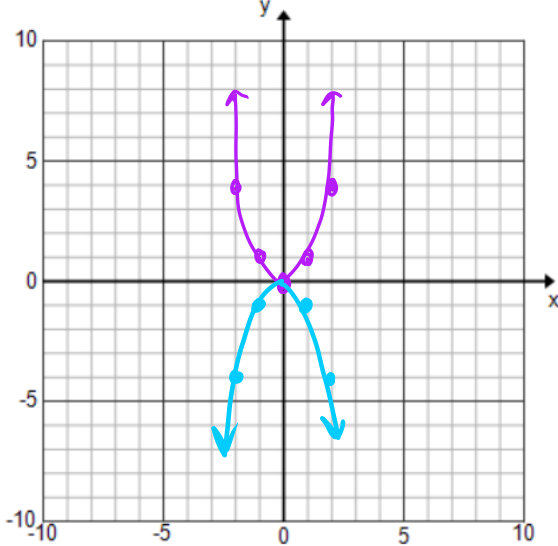
$y = (x + 3)^2$  Left 3



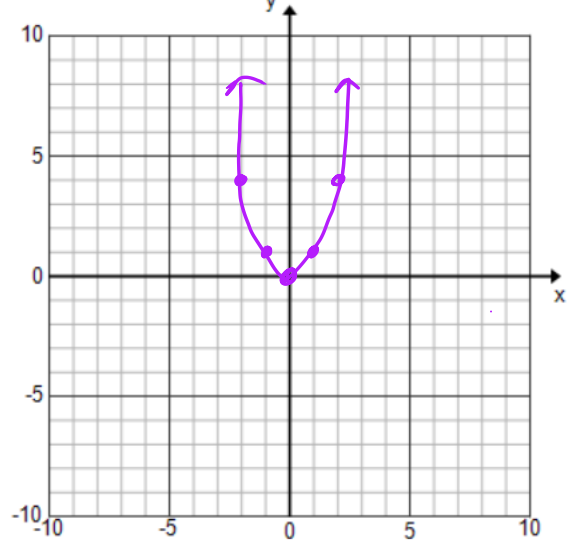
$y = (x - 3)^2$  Right 3



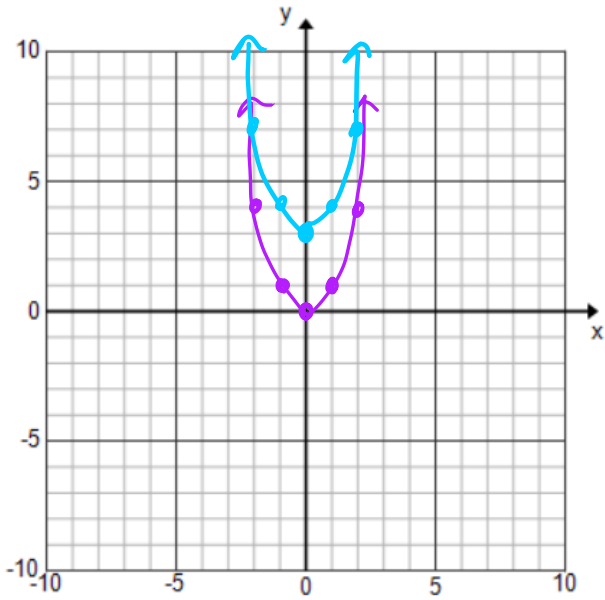
$y = -x^2$  reflect over x-axis



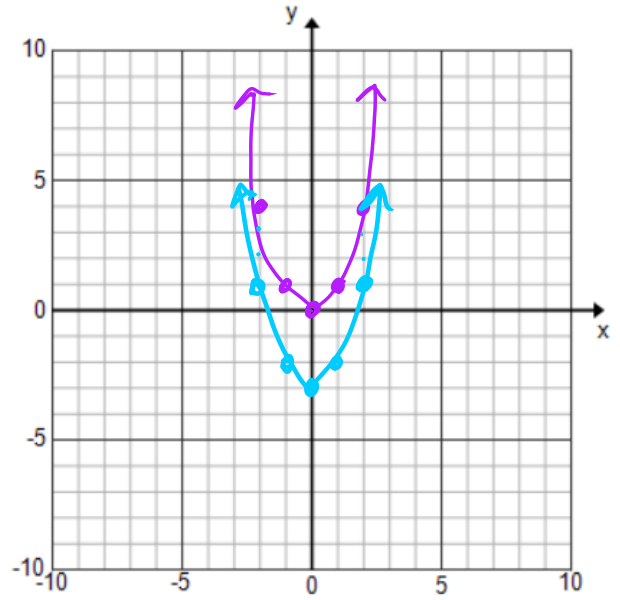
$y = (-x)^2$



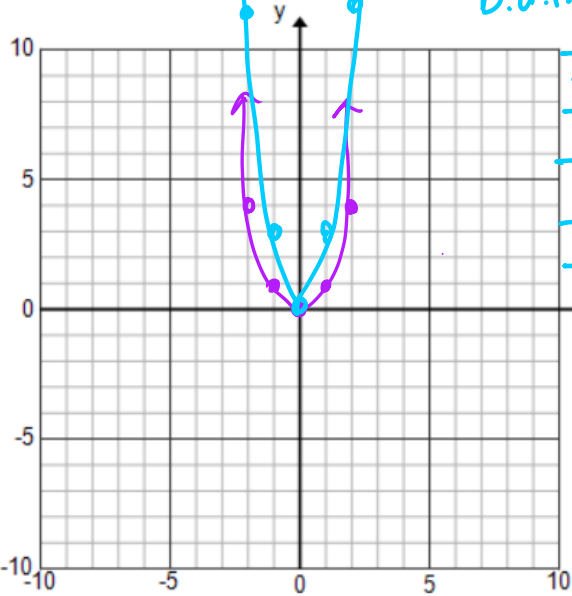
$y = x^2 + 3$  up 3



$y = x^2 - 3$  down 3

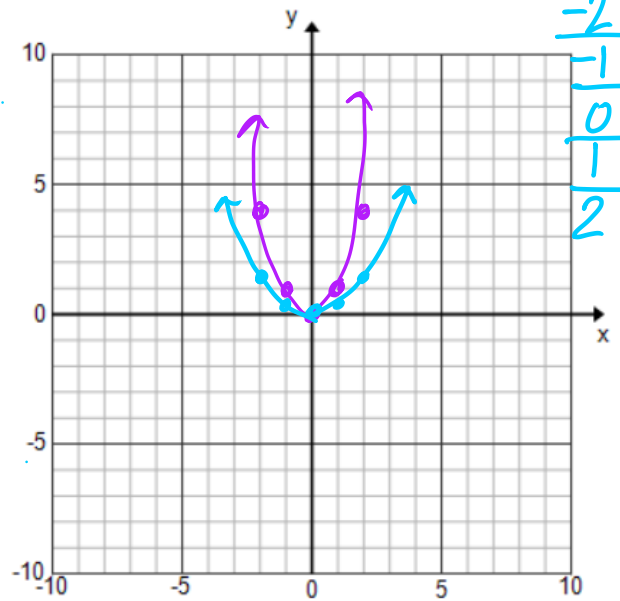


$y = 3x^2$  vertical stretch  
b.o.f. 0 3



x	y
-2	12
-1	3
0	0
1	3
2	12

$y = 1/3x^2$  vertical shrink



x	y
-2	1.3
-1	0.3
0	0
1	0.3
2	1.3