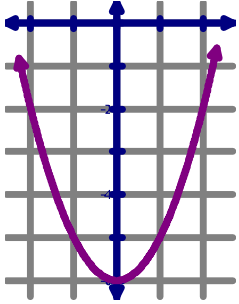
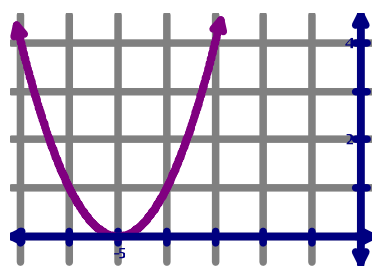


Translations and the Quadratic Family – Answers

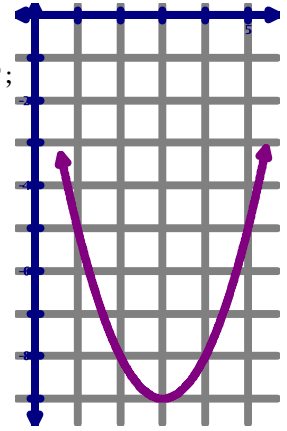
1. down 6;  $(0, -6)$



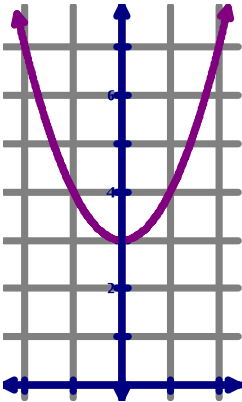
2. left 5;  $(-5, 0)$



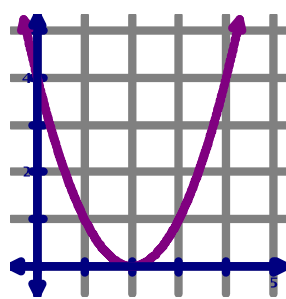
3. right 3, down 9;  
 $(3, -9)$



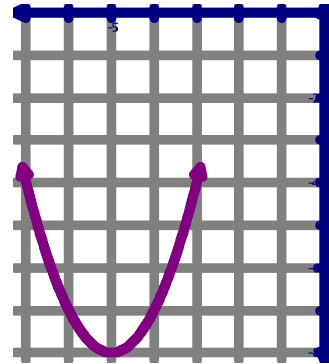
4. up 3;  $(0, 3)$



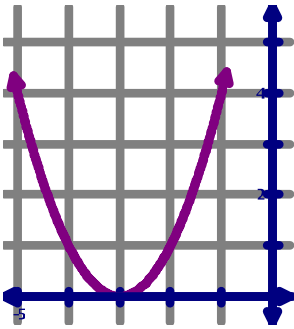
5. right 2;  $(2, 0)$



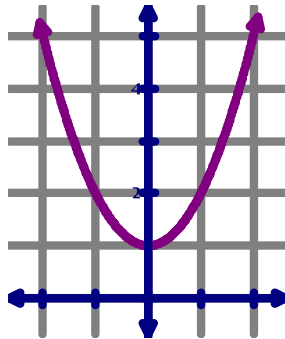
6. left 5, down 8;  $(-5, -8)$



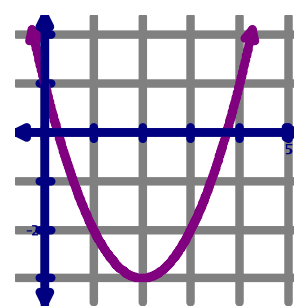
7.  $g(x) = (x+3)^2$



8.  $h(x) = x^2 + 1$



9.  $j(x) = (x-2)^2 - 3$



10.  $x = 5$   $x = -5$

11.  $x = 8$   $x = -8$

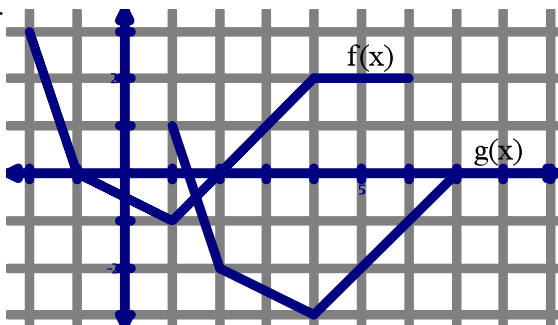
12.  $x = 13$   $x = -7$

13.  $x = 5$   $x = -19$

14.  $x = 2$   $x = -10$

15. Impossible

16.



17.

