

READY, SET, GO!

Name \_\_\_\_\_

Period \_\_\_\_\_

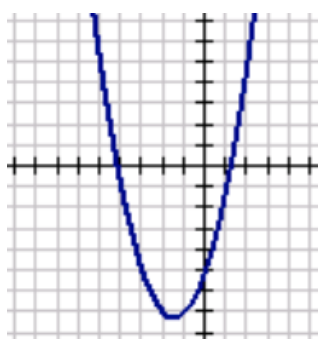
Date \_\_\_\_\_

## READY

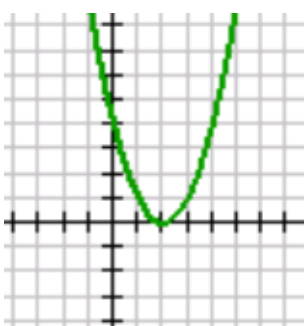
Topic: Find y-intercepts in parabolas

State the y-intercept for each of the graphs. Then match the graph with its equation.

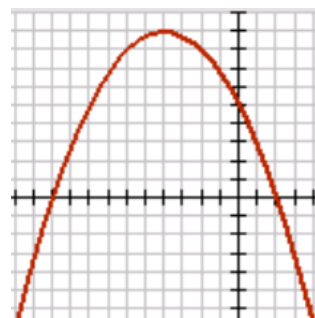
1.



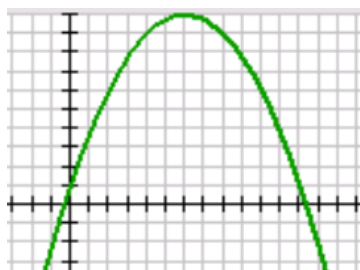
2.



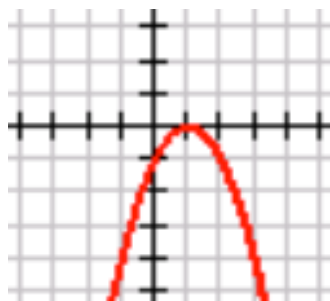
3.



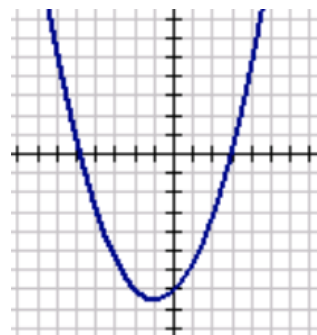
4.



5.



6.



a.  $f(x) = -x^2 + 2x - 1$

b.  $f(x) = -.25x^2 - 2x + 5$

c.  $f(x) = x^2 + 3x - 5$

d.  $f(x) = .5x^2 + x - 7$

e.  $f(x) = -.25x^2 + 3x + 1$

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

Need help? Visit [www.rsgsupport.org](http://www.rsgsupport.org)

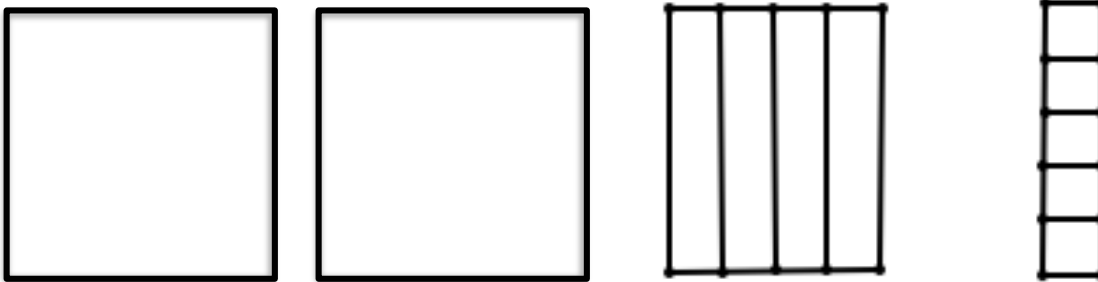
## SET

Topic: Completing the square when  $a > 1$ .

Fill in the missing constant so that each expression represents 5 perfect squares. Then state the dimensions of the squares in each problem.

7.  $5x^2 + 30x + \underline{\hspace{2cm}}$       8.  $5x^2 - 50x + \underline{\hspace{2cm}}$       9.  $5x^2 + 10x + \underline{\hspace{2cm}}$

10. Given the scrambled diagram below, write two equivalent equations for the area.



Determine if each expression below is a perfect square or not. If it is not a perfect square, find the perfect square that seems “closest” to the given expression and show how the perfect square can be adjusted to be the given expression.

11.  $A(x) = x^2 + 10x + 14$       12.  $A(x) = 2x^2 + 16x + 6$       13.  $A(x) = 3x^2 + 18x - 12$

## GO

Topic: Evaluating functions.

Find the indicated function value when  $f(x) = 4x^2 - 3x - 25$  and  $g(x) = -2x^2 + x - 5$ .

14.  $f(1)$     15.  $f(5)$       16.  $g(10)$       17.  $g(-5)$       18.  $f(0) + g(0)$

Need help? Visit [www.rsgsupport.org](http://www.rsgsupport.org)