

READY, SET, GO!

Name _____

Period _____

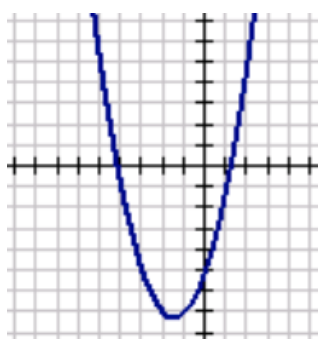
Date _____

READY

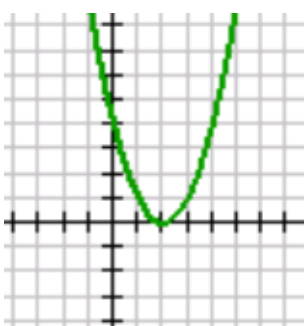
Topic: Find y-intercepts in parabolas

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

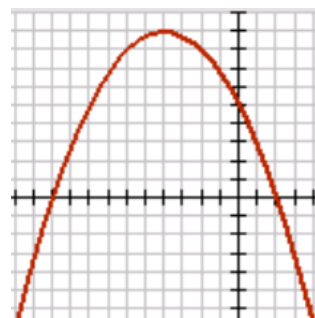
1.



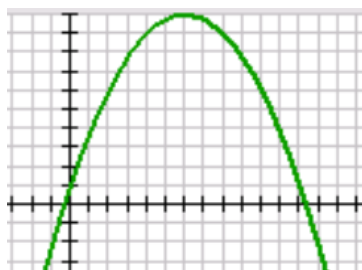
2.



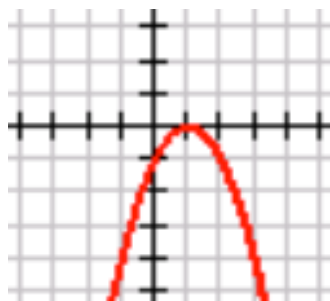
3.



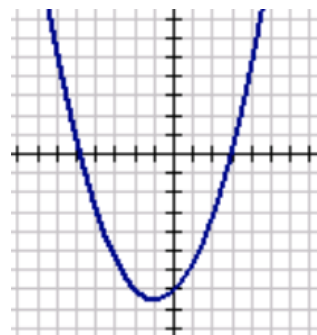
4.



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

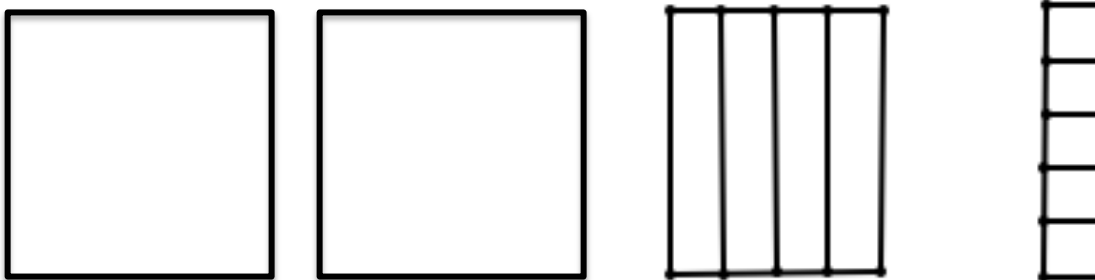
SET

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. $f(0) + g(0)$