NAME DATE PERIOD

Lesson 7: The x-Factor

Ready, Set, Go

Ready

For each of the linear equations, state the important features that are either given or most easily found from the form of the equation that is given.

1. $g(x) = 6(x - 8) + 3$

2. $5x - 2y = 30$

3. $h(x) = -4x + 9$

For each of the exponential equations, state the important features that are given right in the equation.

4. $f(x) = 5(2)^x$

5. $w(x) = w(x - 1) \cdot 4,\ w(1) = 13$

6. $r(t) = 2(3)^{t-1}$

Set

The area of a rectangle is given in the form of a trinomial expression. Find the equivalent expression that shows the lengths of the two sides of the rectangle.

© 2021 Open Up Resources and Mathematics Vision Project Download for free at openup.org

NAME DATE PERIOD

7. $x^2 + 9x + 8$

8. $x^2 - 6x + 8$

9. $x^2 - 2x - 8$

10. $x^2 + 7x - 8$

11. $x^2 - 11x + 24$

12. $x^2 - 14x + 24$

13. $x^2 - 25x + 24$

14. $x^2 - 10x + 24$

15. $x^2 - 2x - 24$

16. $x^2 - 5x - 24$

17. $x^2 + 5x - 24$

18. $x^2 - 10x + 25$

© 2021 Open Up Resources and Mathematics Vision Project Download for free at openup.org

NAME DATE PERIOD

19. $x^2 - 25$

20. $x^2 - 2x - 15$

21. $x^2 + 10x - 75$

22. $x^2 - 20x + 51$

23. $x^2 + 14x - 32$

24. $x^2 - 1$

25. $x^2 - 2x + 1$

26. $x^2 + 12x - 45$

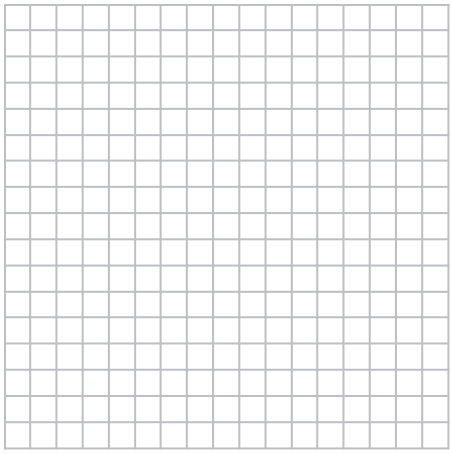
Go

Graph each parabola. Include the vertex and at least three precise points on each side of the line of symmetry. Then describe the transformation in words.

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

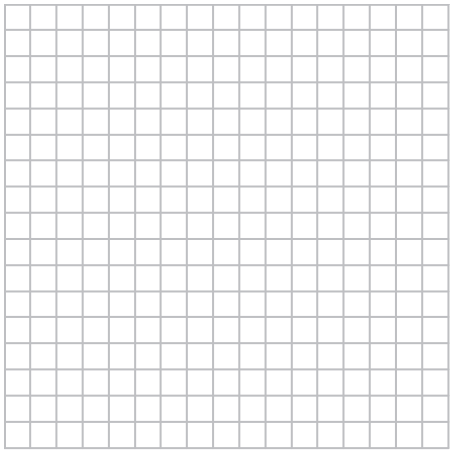
© 2021 Open Up Resources and Mathematics Vision Project Download for free at openup.org

NAME DATE PERIOD



Description:

28. $g(x) = x^2 - 3$

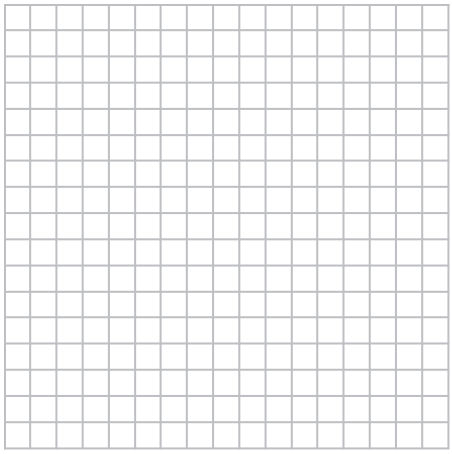


Description:

29. $h(x) = (x - 2)^2$

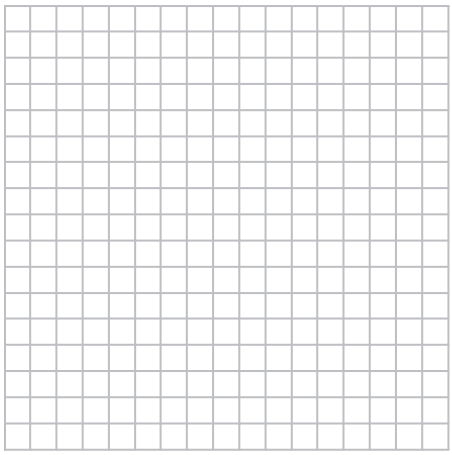
© 2021 Open Up Resources and Mathematics Vision Project Download for free at openup.org

NAME DATE PERIOD



Description:

30. $b(x) = -(x+1)^2 + 4$



Description:

© 2021 Open Up Resources and Mathematics Vision Project Download for free at openup.org