8.1 Puzzle Time

Where Does A Squirrel Keep Its Winter Clothes?

Write the letter of each answer in the box containing the exercise number.

Compare the graph of the function to the graph of
$f(x) = x^2$.

1. $b(x) = -x^2$

2. $p(x) = 5x^2$

3. $q(x) = \frac{1}{3}x^2$

4. $t(x) = -4x^2$

5. $c(x) = -0.2x^2$

6. $h(x) = 6.4x^2$

7. $r(x) = 0.12x^2$

8. $d(x) = -\frac{8}{5}x^2$

9. $s(x) = \frac{2}{3}x^2$

10. $k(x) = \frac{1}{9}x^2$

11. The graph of a parabolic bowl can be represented by $g(x) = \frac{2}{5}x^2$. Compare the graph to the graph of $f(x) = x^2$.

12. The decorated archway at the entrance to a craft fair can be represented by $h(x) = -7x^2$. Compare the graph to the graph of $f(x) = x^2$.

Answers

E. vertical shrink by a factor of $\frac{1}{3}$

T. vertical shrink by a factor of $\frac{1}{9}$

K. reflection in the x-axis; vertical shrink by a factor of 0.2

N. reflection in the x-axis

A. vertical shrink by a factor of $\frac{2}{5}$

T. vertical shrink by a factor of 0.12

R. reflection in the x-axis; vertical stretch by a factor of 4

N. vertical stretch by a factor of 5

R. reflection in the x-axis; vertical stretch by a factor of $\frac{8}{5}$

I. vertical stretch by a factor of 6.4

E. vertical shrink by a factor of $\frac{2}{3}$

U. reflection in the x-axis; vertical stretch by a factor of 7

6	2		11		7	4	9	3		10	8	12	1	5