



Function Transformations (Vertex) - Double Transformation (Variables) to Transformed Vertex

1 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = f(x + r) - w$$

A $(a + r, b - w)$

B $(a - r, b + w)$

C $(a - r, b - w)$

2 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = f(w \cdot x + q)$$

A $(a - q, w \cdot b)$

B $(\frac{a}{w} - q, b)$

C $(\frac{a}{w} + q, b)$

3 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = f(-p \cdot x)$$

A $(-\frac{a}{p}, b)$

B $(\frac{a}{p}, -b)$

4 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = p \cdot f(x) - w$$

A $(\frac{a}{p}, b - w)$

B $(a, p \cdot b + w)$

C $(a, p \cdot b - w)$

5 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = f(-x + t)$$

A $(a - t, -b)$

B $(-(a - t), b)$

C $(-(a + t), b)$

6 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = -f(x) - m$$

A $(-a, b - m)$

B $(a, -(b - m))$

C $(a, -(b + m))$

7 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = p \cdot f(x + t)$$

A $(a - t, p \cdot b)$

B $(\frac{a}{p} - t, b)$

8 If the vertex of $f(x)$ is (a,b) , what is the vertex of $g(x)$?

$$g(x) = q \cdot f(x) - m$$

A $(a, q \cdot b - m)$

B $(\frac{a}{q}, b - m)$

C $(a, q \cdot b + m)$