9 Advance Mathematics

Lesson – 4.7 (Absolute value function)

Name in English -

Describe the translation in $g(x)$ as it relates to the graph of the parent function.

1. $g(x) = |x| - 5$
   a) Translate 5 units up
   b) Translate 5 units down
   c) Translate 5 units right
   d) Translate 5 units left

2. $g(x) = |x| + 4$
   a) Translate 4 units up
   b) Translate 4 units down
   c) Translate 4 units right
   d) Translate 4 units left

3. $g(x) = |x - 3|$
   a) Translate 3 units up
   b) Translate 3 units down
   c) Translate 3 units right
   d) Translate 3 units left

4. $g(x) = |x + 4|$
   a) Translate 4 units up
   b) Translate 4 units down
   c) Translate 4 units right
   d) Translate 4 units left

5. $g(x) = |x + 6| - 2$
   a) Translate 6 units up and 2 units down
   b) Translate 6 units left and 2 units down

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c) Translate 2 units up and 6 units left

d) Translate 6 units right and 2 units up

6. $g(x) = |x - 2| + 7$

a) Translate 2 units right and 7 units up

b) Translate 2 units left and 7 units up

c) Translate 2 units left an 7 units up

d) Translate 7 units right and 2 units up

7. $g(x) = |x + 1| - 3$

a) Translate 1 unit left 3 units up

b) Translate 1 unit left and 3 units down

c) Translate 1 unit right and 3 units up

d) Translate 1 unit right and 3 units up

8. $g(x) = |x| + 1$

a) Translate 1 units up

b) Translate 1 units down

c) Translate 1 units right

d) Translate 1 units left

9. $g(x) = |x - 8|$

a) Translate 8 units up

b) Translate 8 units down

c) Translate 8 units right

d) Translate 8 units left

10. $g(x) = |x - 11| + 2$

a) Translate 11 units left and 2 units up

b) Translate 11 units left and 2 units down

c) Translate 11 units right and 2 units up

d) Translate 11 units right and 2 units down

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