

MODULE 1

LESSON 5

QUIZ

1. Question. The points $(2, -3)$, $(5, -3)$, $(1, -3)$, $(7, -3)$, $(-2, -3)$, $(0, -3)$, $(11, -3)$, and $(-3, -3)$

- A. lie on the same vertical line
- B. lie on the same diagonal line $y = x$
- C. lie on the same horizontal line
- D. are reflected about the x-axis

Go to answer 1

2. Question. Given $f(x) = x^{25} + 4x + 7$, which of the following best describes the graph of the function $y = x^{25} + 4x + 17$?

- A. Vertical translation of the graph of $y = f(x)$ by 10 units upward
- B. Vertical translation of the graph of $y = f(x)$ by 10 units downward
- C. Horizontal translation of the graph of $y = f(x)$ by 10 units to the left
- D. Horizontal translation of the graph of $y = f(x)$ by 10 units to the right

Go to answer 2

3. Question. Given $f(x) = x^{25} + 4x + 7$, which of the following best describes the graph of the function $y = -x^{25} - 4x + 7$?

- A. Reflection of the graph of $y = f(x)$ in the x-axis.
- B. Reflection of the graph of $y = f(x)$ in the y-axis.
- C. Reflection of the graph of $y = f(x)$ in the origin $(0, 0)$.

D. Reflection of the graph of $y = f(x)$ in the diagonal line $y = x$.

Go to answer 3

4. Question. Given $f(x) = x^5 + 4x^2 + 7x + 1$, which of the following equations best describes the function $y = g(x)$ whose graph is obtained from the graph of $y = f(x)$ by the reflection of the graph $y = f(x)$ in the x-axis?

A. $g(x) = -x^5 - 4x^2 - 7x + 1$

B. $g(x) = x^5 - 4x^2 + 7x - 1$

C. $g(x) = -x^5 + 4x^2 - 7x + 1$

D. $g(x) = -x^5 - 4x^2 - 7x - 1$

Go to answer 4

Now go to the series of questions on the next page.

SERIES OF QUESTIONS. For the Questions from 5 through 11, let P be the point $(-3, 2)$ and let us consider the following eight points:

A. $(3, -2)$

B. $(3, 2)$

C. $(-3, 7)$

D. $(2, 2)$

E. $(-3, -2)$

F. $(-8, 2)$

G. $(-3, -3)$

H. $(2, -3)$.

5. Question. Which of the points above is obtained from the point P by the vertical translation 5 units upward?

Go to answer 5

6. Question. Which of the points above is obtained from the point P by the vertical translation 5 units downward?

Go to answer 6

7. Question. Which of the points above is obtained from the point P by the horizontal translation 5 units to the right?

Go to answer 7

8. Question. Which of the points above is obtained from the point P by the horizontal translation 5 units to the left?

Go to answer 8

9. Question. Which of the points above is obtained from the point P by the reflection in the y -axis?

Go to answer 9

10. Question. Which of the points above is obtained from the point P by the reflection in the x -axis?

Go to answer 10

11. Question. Which of the points above is obtained from the point P by the reflection in the diagonal line $y = x$?

Go to answer 11

SERIES OF QUESTIONS. For the Questions from 12 through 18, let $y = f(x)$ be a function given by the equation $y = 8x^3 + 5$ and let us consider the following eight equations:

A. $x = 8y^3 + 5$

B. $y = 8x^3$

C. $y = -8x^3 + 5$

D. $y = 8x^3 + 10$

E. $y = -8x^3 - 5$

F. $y = 8(x + 5)^3 + 5$

G. $y = 8x^3 - 5$

H. $y = 8(x - 5)^3 + 5$.

12. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the vertical translation 5 units upward?

Go to answer 12

13. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the vertical translation 5 units downward?

Go to answer 13

14. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the horizontal translation 5 units to the right?

Go to answer 14

15. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the horizontal translation 5 units to the left?

Go to answer 15

16. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the reflection in the y -axis?

Go to answer 16

17. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the reflection in the x -axis?

Go to answer 17

18. Question. Which of the equations above describes the function obtained from $y = 8x^3 + 5$ by the reflection in the diagonal line $y = x$?

Go to answer 18

ANSWERS

1. Answer to Question 1 is "C".

Go back 1

2. Answer to Question 2 is "A".

Go back 2

3. Answer to Question 3 is "B".

Go back 3

4. Answer to Question 4 is "D".

Go back 4

5. Answer to Question 5 is "C".

Go back 5

6. Answer to Question 6 is "G".

Go back 6

7. Answer to Question 7 is "D".

Go back 7

8. Answer to Question 8 is "F".

Go back 8

9. Answer to Question 9 is "B".

Go back 9

10. Answer to Question 10 is "E".

Go back 10

11. Answer to Question 11 is "H".

Go back 11

12. Answer to Question 12 is "D".

Go back 12

13. Answer to Question 13 is "B".

Go back 13

14. Answer to Question 14 is "H".

Go back 14

15. Answer to Question 15 is "F".

Go back 15

16. Answer to Question 16 is "C".

Go back 16

17. Answer to Question 17 is "E".

Go back 17

18. Answer to Question 18 is "A".

Go back 18