MODULE 3

LESSON 1

QUIZ

1. Question. For which values of x is the rational function

$$f(x) = \frac{x^2 - 1}{27x^3 - 3x}$$

undefined?

A. $x = 1$ and $x = -1$

B. $x = 0$ and $x = \frac{1}{3}$

C. $x = 0$, $x = \frac{1}{3}$ and $x = -\frac{1}{3}$

D. $x = 2$ and $x = -3$

Go to answer 1

2. Question. For which values of x is the rational function

$$f(x) = \frac{-x^2 + 5x}{x^2 + x - 6}$$

undefined?

A. $x = 0$ and $x = 5$

B. $x = 0$, $x = 5$, $x = -2$ and $x = 3$

C. $x = -2$ and $x = 3$

D. $x = 2$ and $x = -3$

Go to answer 2

3. Question. Which of the following is

$$\frac{-x}{x+1}+\frac{2}{x+2}$$

written in the lowest terms?

A. $\frac{-x+2}{2x+3}$

B. $\frac{-x^2+2}{x^2+3x+2}$

C. $\frac{-x^2+4x+2}{x^2+2x+2}$

D. $\frac{-x^2+2}{x^2+2x+3}$

Go to answer 3

4. Question. Which of the following is

$$\frac{1}{x}-\frac{x^2+1}{x^3-x}$$

written in the lowest terms?

A. $\frac{-x^2}{2x-x^3}$

B. $\frac{-x}{x^2-1}$

C. 0

D. $\frac{-2}{x^3-x}$

Go to answer 4

5. Question. Which of the following is

$$\frac{1}{x} \div \frac{x^2+1}{x^3-x}$$

written in the lowest terms?

A. $\frac{x^2-1}{x^2+1}$

B. $\frac{x^2+1}{x^4-x^2}$

C. $\frac{x^3-x}{x^3+x}$

D. $\frac{x^2+1}{x^2-1}$

Go to answer 5

6. Question. Which of the following is

$$\frac{x^2}{x-3} \div \frac{x^2+x}{x^2-9}$$

written in the lowest terms?

A. $\frac{x^4+x^3}{x^3-3x^2-9x+27}$

B. $\frac{x^2+3x}{x+1}$

C. $\frac{x^2+3}{x+1}$

D. $\frac{x^2+3x}{x^2+1}$

Go to answer 6

7. Question. Which of the following is

$$\frac{(x+1)(x-3)}{(x+2)(x+3)} \cdot \frac{x^2+5x+6}{x^2-2x-3}$$

written in the lowest terms?

A. $\frac{(x+1)(x-3)(x^2+5x+6)}{(x+2)(x+3)(x^2-2x-3)}$

B. $\frac{(x+1)(x^2+5x+6)}{(x+2)(x^2-2x-3)}$

C. 1

D. 0

Go to answer 7

8. Question. Which of the following is

$$\frac{x^2}{x^2-9} + \frac{2x+1}{x+3}$$

written in the lowest terms?

A. $\frac{3x^2-5x-3}{x^-9}$

B. $\frac{x^3+3x^2+2x+1}{(x^2-9)(x+3)}$

C. $\frac{3x^3+4x^2-18x-9}{x^3+3x^2-9x-27}$

D. $\frac{x^2+2x+1}{x^2+x-6}$

Go to answer 8

9. Question. Which of the following is a simplified form of

$$\frac{\frac{3x}{x+2}+\frac{2}{x-3}}{\frac{1}{x-3}+\frac{1}{x+2}}?$$

A. $\frac{3x^2-5x+4}{2x-1}$

B. $\frac{3x+2}{2}$

C. $\frac{3x^2-7x+4}{2x-1}$

D. $\frac{3x^2-7x+4}{x^2-x-6}$

Go to answer 9

10. Question. Which of the following is a simplified form of

$$\frac{\frac{1}{x}+\frac{2}{x-1}}{\frac{1}{x-1}+\frac{1}{x+1}}?$$

A. $\frac{6x^2-2x}{x^3-x}$

B. $\frac{3x^2+2x-1}{2x^2}$

C. $\frac{2x^2+3x-1}{2x^2}$

D. $\frac{3x^2+2x-1}{x^2-1}$

Go to answer 10

ANSWERS

1. Answer to Question 1 is "C".

   Go back 1

2. Answer to Question 2 is "D".

   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 "A".

   Go back 5

6. Answer to Question 6 is "B".

   Go back 6

7. Answer to Question 7 is "C".

   Go back 7

8. Answer to Question 8 is "A".

   Go back 8

9. Answer to Question 9 is "C".

   Go back 9

10. Answer to Question 10 is "B".

    Go back 10