

CHAPTER
8 **Quiz**
Section A

Select the best answer.

- If a varies jointly with b and c , which statement is also true?
 - b varies directly with a and inversely with c .
 - c varies directly with b and inversely with a .
 - b varies jointly with a and c .
 - c varies jointly with a and b .
- P varies directly with Q and inversely with R , and $P = 9$ when $Q = 3$ and $R = 4$. Find Q when $P = 1$ and $R = 0.5$.
 - $\frac{1}{24}$
 - $\frac{1}{8}$
 - 24
 - 216
- Based on the data set, which statement is true?

A	5	4	2
B	6	2	3
C	15	36	12

 - A varies directly with B and inversely with C .
 - B varies jointly with A and C .
 - C varies directly with A and inversely with B .
 - C varies jointly with A and B .

- Simplify $\frac{2x^2 - 5x - 3}{x^2 - 16} \div \frac{4x^2 - 1}{2x^2 + 7x - 4}$.
 - $\frac{x - 3}{x - 4}$
 - $\frac{2x^2 - 9x + 4}{2x^2 - 7x + 3}$
 - $\frac{x^2 - 9}{x^2 - 7x + 12}$
 - $\frac{(2x + 1)(2x^2 - 5x - 3)}{(x + 4)(x^2 - 16)}$

- Find the solution set for the equation

$$\frac{5 - x}{x^2 - 3x - 10} = 2.$$

- $\{-5\}$
 - $\{2.5\}$
 - $\{-5, 2.5\}$
 - There is no solution.
- Simplify $\frac{x}{1 - x^2} - \frac{x}{1 - x}$.
 - $\frac{-1}{x^2 - 1}$
 - $\frac{1}{x^2 - 1}$
 - $\frac{x}{1 - x^2}$
 - $\frac{x}{x^2 - 1}$
 - Ted walks around the track at school at an average rate of 4 miles per hour. He then runs once around the track. If his average for the two laps is 6 miles per hour, what is his average rate when running?
 - 8 mph
 - 9 mph
 - 9.6 mph
 - 12 mph
 - Which function is continuous?
 - $A(x) = \frac{1}{x^2 + 2x + 1}$
 - $B(x) = \frac{1}{x^2 + 2x + 2}$
 - $C(x) = \frac{x}{x^2 - 1}$
 - $D(x) = \frac{x}{x^2 - 2}$
 - Identify all asymptotes of $f(x) = \frac{x^2 + 2x - 15}{x^3 + 1}$.
 - vertical asymptote: $x = -1$; horizontal asymptote: $y = 0$
 - vertical asymptote: $x = -1$; horizontal asymptotes: $y = -5$ and $y = 3$
 - no vertical asymptote; horizontal asymptote: $y = 0$
 - no vertical asymptote; horizontal asymptote: $y = -1$

CHAPTER 8

Section Quiz: Section A

1. A
2. F
3. C
4. F
5. B
6. G
7. D
8. G
9. A

Section Quiz: Section B

1. A
2. G
3. A
4. J
5. C
6. J
7. A
8. G

Chapter Test Form A

1. A
2. C
3. B
4. A
5. A
6. A
7. D
8. B
9. A
10. A
11. A

12. D
13. B
14. A
15. A
16. A
17. B
18. B
19. A
20. A

Chapter Test Form B

1. A
2. G
3. B
4. F
5. C
6. F
7. A
8. F
9. C
10. F
11. D
12. J
13. A
14. H
15. C
16. J
17. A
18. F
19. B
20. H

Chapter Test Form C

1. A
2. G