

- Simplify the expression: $(2x^4 - 3x^2 + 4) + (-5x^4 + 7x^2 + 3)$
A. $-3x^8 + 4x^4 + 7$ B. $-3x^4 + 4x^2 + 7$ C. $-3x^4 + 4x^2 + 4$ D. $-x^4 + 10x^2 + 7$
- Simplify the expression: $(8y^3 - 11y + 7) - (-5y^3 + 4y - 6)$
A. $3y^3 - 7y + 1$ B. $13y^3 - 7y + 1$ C. $3y^3 - 15y + 1$ D. $13y^3 - 15y + 13$
- Solve the equation: $4x + 9 = 3 - (x - 2)$
A. $\frac{4}{3}$ B. $-\frac{8}{5}$ C. $-\frac{4}{5}$ D. 2
- Solve the equation: $3(x + 5) - 1 + 2x = 2 - (3 - 2x)$
A. -5 B. -2 C. \emptyset D. $-\frac{15}{7}$
- Solve the equation: $\frac{x}{4} - 4 = \frac{3x}{2} + \frac{3x}{4}$
A. $-\frac{1}{2}$ B. 2 C. 0 D. -2
- Solve the equation: $\frac{1}{2}(4x + 3) - 1 = 2x - 3$
A. 0 B. -6 C. \emptyset D. -3
- Determine the greatest common factor: $60x^8 + 72x^5 + 36x^4$
A. $4x^4$ B. $6x^8$ C. $3x$ D. $12x^4$
- Factor out the greatest common factor: $8x^3y^2 + 24xy^3$
A. $4xy^2(2x^2 + 6y)$ B. $8xy^2(x^2 + 3y)$ C. $8xy(x^2y + 3y^2)$ D. $4xy(2x^2y + 6y^2)$

9. The complete factored form of $5a^2 + 15ab - 2ac - 6bc$, is:
A. $(5a - 2c)(a + 3b)$ B. $(5a + 2c)(a + 3b)$ C. $(5a + 2c)(a - 3b)$ D. $(5a - 2c)(a - 3b)$
10. One factor of $x^2 - 13x - 30$, is:
A. $x - 6$ B. $x - 3$ C. $x + 10$ D. $x + 2$
11. One factor of $6x^2 + 11x - 10$, is:
A. $3x - 2$ B. $6x + 5$ C. $3x + 2$ D. $2x - 5$
12. One factor of $2x^2 - 5xy - 3y^2$, is:
A. $x + 3y$ B. $2x - y$ C. $x - 3y$ D. $2x - 3y$
13. One factor of $16x^2 - 81$, is:
A. $4x - 9$ B. $2x - 3$ C. $4x + 3$ D. $8x + 9$
14. One factor of $25x^2 - 9y^2$, is:
A. $5x + 9y$ B. $5x - 3y$ C. $5x - 9y$ D. $5x + 3$
15. Choose the answer below that best describes the type of equation: $9x^2 + 12x = -4$
A. Linear B. Rational C. Quadratic D. Radical
16. Choose the answer below that best describes the type of equation: $\frac{1}{x+4} + \frac{x}{x-4} = \frac{-8}{x^2-16}$
A. Linear B. Rational C. Quadratic D. Radical
17. Solve the equation: $9x^2 + 12x = -4$
A. $\frac{2}{3}$ B. $\frac{3}{2}$ C. $-1, -\frac{4}{9}$ D. $-\frac{2}{3}$

18. Solve the equation: $\frac{1}{x+4} + \frac{x}{x-4} = \frac{-8}{x^2-16}$

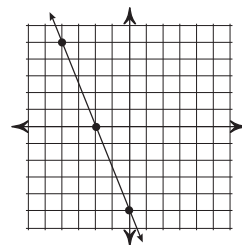
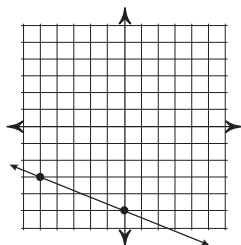
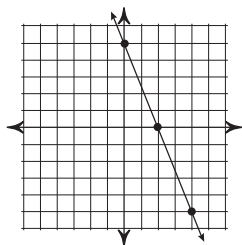
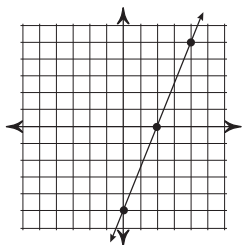
A. -4

B. -1

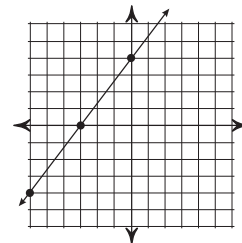
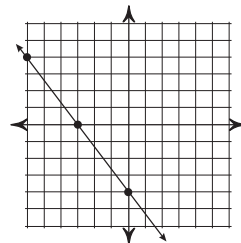
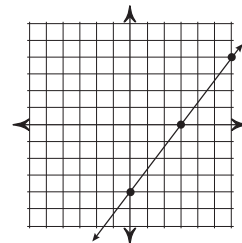
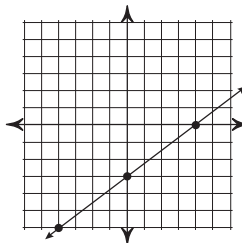
C. 2

D. 1

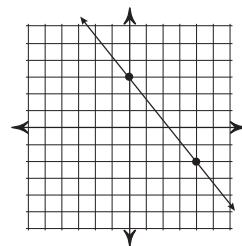
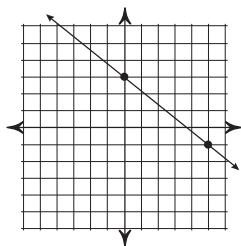
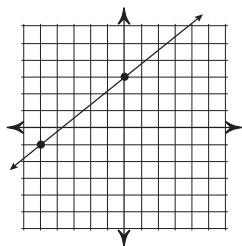
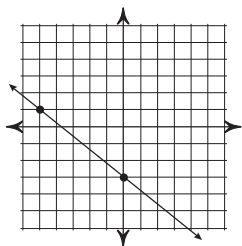
19. Graph the line $5x + 2y = -10$ and identify the slope of the line.

A. $m = 5/2$ B. $m = -5/2$ C. $m = -2/5$ D. $m = -5/2$ 

20. Graph the line $4x - 3y = 12$ and identify the slope of the line.

A. $m = 3/4$ B. $m = 4/3$ C. $m = -4/3$ D. $m = 4/3$ 

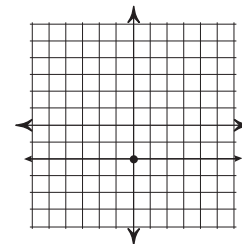
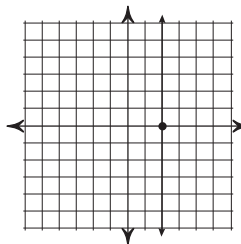
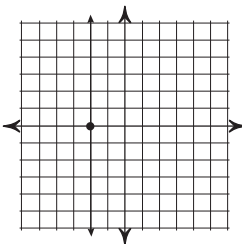
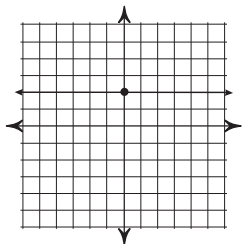
21. Graph the line $y = -\frac{4}{5}x + 3$ and identify the slope.

A. $m = -4/5$ B. $m = 4/5$ C. $m = -4/5$ D. $m = -5/4$ 

22. Graph the line $y = 2$ and identify the slope.

A. $m = 0$ B. $m = -2$

C. slope is undefined

D. $m = 2$ 

Answers:

1. B

2. D

3. C

4. A

5. D

6. C

7. D

8. B

9. A

10. D

11. A

12. C

13. A

14. B

15. C

16. B

17. D

18. B

19. D

20. B

21. C

22. A