

Student: _____
Date: _____

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Program: CMAP4 Parts A_B_C_D

Assignment: Review For Math
Assessment & Placement: Part C

1. Simplify: $(-6a^4b^5)(2a^5b^2) =$

- A. $-12a^{-1}b^3$
 B. $-4a^9b^7$
 C. $-12a^9b^7$
 D. $-12a^{20}b^{10}$

ID: MC 12.5-CEA6

2. Complete the factoring.

$$9x^2 + 40x + 16 = (x + 4)(\quad)$$

- A. $x - 12$
 B. $9x - 12$
 C. $9x + 4$
 D. $x + 4$

ID: MC 13.4-6

3. Factor completely.

$$9y^4 - 49$$

- A. Prime
 B. $(3y^2 + 7)^2$
 C. $(3y^2 + 7)(3y^2 - 7)$
 D. $(3y^2 - 7)^2$

ID: MC 13.5-3

4. Find the product.

$$(x - 11)(5x + 12)$$

- A. $5x^2 - 132x - 43$
 B. $5x^2 - 43x - 132$
 C. $5x^2 - 43x - 43$
 D. $5x^2 - 45x - 132$

ID: MC 12.3-10

5. Solve the equation.

$$\frac{x - 3}{6} = \frac{x + 4}{3}$$

- A. $\frac{1}{2}$
- B. -11
- C. 5
- D. $\frac{11}{6}$

ID: MC 14.6-7

6. Solve the equation.

$$-4p - 6 = 3 + 9p$$

- A. $-\frac{13}{9}$
- B. $-\frac{9}{13}$
- C. $-\frac{5}{3}$
- D. $\frac{13}{9}$

ID: MC 10.3-4

7. Solve the equation.

$$5x^2 - 35x + 60 = 0$$

- A. $3, 4$
- B. $5, 3, 4$
- C. $0, 3, 4$
- D. $-3, -4$

ID: MC 13.6-12

8. Add or subtract. Write the answer in lowest terms.

$$\frac{-5}{y-1} - \frac{1}{1-y}$$

- A. $\frac{6}{y-1}$
- B. $\frac{-4}{y-1}$
- C. $\frac{-5}{y-1}$
- D. $\frac{-6}{y-1}$

ID: MC 14.4-14

9. Simplify and add or subtract wherever possible.

$$-2\sqrt{3} - 9\sqrt{12}$$

- A. $-20\sqrt{3}$
- B. $20\sqrt{3}$
- C. $-11\sqrt{3}$
- D. $-16\sqrt{3}$

ID: MC 16.3-5

10. Complete the factoring.

$$3x^2 - 8x - 16 = (3x + 4)(\quad)$$

- A. $x - 4$
- B. $x + 4$
- C. $3x + 12$
- D. $3x - 4$

ID: MC 13.4-8

11. Solve the equation.

$$\frac{x - 7}{6} = \frac{x + 8}{7}$$

- A. $\frac{97}{42}$
- B. 97
- C. $\frac{7}{6}$
- D. 2

ID: MC 14.6-7

12. For all $x \neq -6$, which of the following is equivalent to the expression below?

$$\frac{x^2 + 10x + 24}{x + 6}$$

- A. $x + 18$
- B. $x + 6$
- C. $x + 2$
- D. $x + 4$
- E. $x + 12$

ID: MC 14.1-CA13

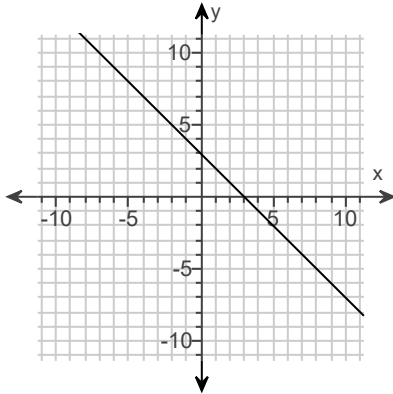
13. Divide. Write the answer in lowest terms.

$$\frac{4x - 4y}{21 - 3z} \div \frac{2y - 2x}{z - 7}$$

- A. $\frac{2}{21}$
- B. $\frac{2(x - y)}{3}$
- C. $-\frac{2}{3}$
- D. $\frac{2}{3}$

ID: MC 14.2-17

14. Use the geometric interpretation of slope (rise divided by run) to find the slope of the line. Then, by identifying the y-intercept from the graph, write the slope-intercept form of the equation of the line.



- A. $y = x + 3$
 B. $y = -x - 3$
 C. $y = -x + 3$
 D. $y = x - 3$

ID: MC 11.4-3

15. Write an equation of the line through the given point with the given slope. Write the equation in slope-intercept form.

$(3, 3)$; $m = -5$

- A. $y = -5x + 18$
 B. $y = -5x + \frac{1}{18}$
 C. $y = -5x - 18$
 D. $y = -\frac{1}{5}x + 18$

ID: MC 11.4-19

16. Write an equation of the line through the given point with the given slope. Write the equation in slope-intercept form.

$(-5, -7)$, $m = 2$

- A. $y = 2x + 8$
 B. $y = 2x - 3$
 C. $y = 2x + 3$
 D. $y = 2x - 8$

ID: MC 11.4-20

17. Find the product.

$$(2x + 8)(2x - 8)$$

- A. $4x^2 + 32x - 64$
- B. $2x^2 - 32x - 64$
- C. $4x^2 - 32x - 64$
- D. $4x^2 - 64$

ID: MC 12.3-12

18. Divide. Write the answer in lowest terms.

$$\frac{6z - y}{3x} \div \frac{5y - 30z}{3x - 30}$$

- A. $\frac{10 - x}{5}$
- B. $-\frac{10}{5}$
- C. $\frac{10 - x}{5x}$
- D. $\frac{6}{x}$

ID: MC 14.2-16

19. Perform the division.

$$\frac{2m^2 + 2m - 40}{m + 5}$$

- A. $2m - 8$
- B. $m - 8$
- C. $2m + 8$
- D. $2m - 8 + \frac{5}{m - 8}$

ID: MC 12.7-2

20. Solve the equation.

$$(x - .8)(x + .3) = 0$$

- A. $-.8, .3$
 B. $.8, -.3$
 C. $.8, -.8, .3, -.3$
 D. $.8, .3$

ID: MC 13.6-2

21. Perform the division.

$$\frac{x^2 + 15x + 56}{x + 8}$$

- A. $x + 7$
 B. $x - 48$
 C. $x^2 + 7$
 D. $x^3 - 48$

ID: MC 12.7-1

22. Write the equation of the line with the given slope and y-intercept.

slope 5;

y-intercept $(0, -4)$

- A. $y = 5x - 4$
 B. $y = 5x + 4$
 C. $y = 4x + 5$
 D. $y = -4x + 5$

ID: MC 11.4-4

23. Simplify the expression by combining like terms.

$$-5(8r + 10) + 8(8r + 8)$$

- A. $3r + 5$
 B. $-90r$
 C. $24r + 10$
 D. $24r + 14$

ID: MC 9.8-17

24. If $-3(2x + 1) = -2x + 5$, then $x =$

- A. $-\frac{1}{2}$
- B. -1
- C. -2
- D. $-\frac{1}{4}$

ID: MC 10.3-CEA9

25. Use the power rules for exponents to simplify. Write the answer in exponential form.

$$(2x^5y^3)^4$$

- A. $16x^9y^7$
- B. $2x^9y^7$
- C. $2x^{20}y^{12}$
- D. $16x^{20}y^{12}$

ID: MC 12.2-17

26. Solve the system by the elimination method.

$$\begin{aligned}x + y &= 2 \\x - y &= 8\end{aligned}$$

- A. $(5, -3)$
- B. $(-5, -2)$
- C. $(4, -2)$
- D. No solution

ID: MC 15.3-1

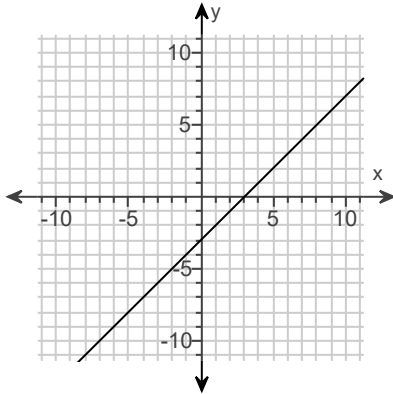
27. Solve the system by the elimination method.

$$\begin{aligned}x - 4y &= 8 \\9x - 3y &= 6\end{aligned}$$

- A. No solution
- B. $(1, -3)$
- C. $(2, 0)$
- D. $(0, -2)$

ID: MC 15.3-3

28. Use the geometric interpretation of slope (rise divided by run) to find the slope of the line. Then, by identifying the y-intercept from the graph, write the slope-intercept form of the equation of the line.



- A. $y = x - 3$
 B. $y = -x - 3$
 C. $y = x + 3$
 D. $y = -x + 3$

ID: MC 11.4-2

29. Write an equation in slope-intercept form of the line satisfying the given conditions.

Through $(-5, 4)$, parallel to $-3x - 5y = 35$

- A. $y = \frac{3}{5}x - 1$
 B. $y = -7x - 7$
 C. $y = -\frac{5}{3}x - \frac{4}{3}$
 D. $y = -\frac{3}{5}x + 1$

ID: MC 11.4-28

30. Perform the indicated operation and simplify, if possible.

$$\frac{4}{x-4} - \frac{x}{x-4}$$

Choose the correct answer.

- A. $\frac{x-4}{x+4}$
 B. $\frac{x-4}{4x}$
 C. -1
 D. 1

ID: 14.4.3

1. C. $-12a^9b^7$

2. C. $9x + 4$

3. C. $(3y^2 + 7)(3y^2 - 7)$

4. B. $5x^2 - 43x - 132$

5. B. -11

6. B. $-\frac{9}{13}$

7. A. 3, 4

8. B. $\frac{-4}{y-1}$

9. A. $-20\sqrt{3}$

10. A. $x - 4$

11. B. 97

12. D. $x + 4$

13. D. $\frac{2}{3}$

14. C. $y = -x + 3$

15. A. $y = -5x + 18$

16. C. $y = 2x + 3$

17. D. $4x^2 - 64$

18. C. $\frac{10 - x}{5x}$

19. A. $2m - 8$

20. B. $.8, -.3$

21. A. $x + 7$

22. A. $y = 5x - 4$

23. D. $24r + 14$

24. C. -2

25. D. $16x^{20}y^{12}$

26. A. $(5, -3)$

27. D. $(0, -2)$

28. A. $y = x - 3$

29. D. $y = -\frac{3}{5}x + 1$

30. C. -1
