

Practice final for MTH O3

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Print Name: _____

1. Evaluate each expression:

A. $(-27) + 20$ **-7** B. $(-5) - (-9)$ **4** C. $(-5)(6)$ **-30** D. $(-42) \div (-6)$ **7**
E. -4^2 **-16**

2. Evaluate each expression:

A. $(2 + 3)^2$ **25** B. $\frac{-8 - 10}{-2 - (-8)}$ **-3**

3. Evaluate: $2x^2 + 4x + 3$ when $x = -3$. **9**

4. Given $C = \frac{5}{9}(F - 32)$, find C when $F = 86$. **$C = 30$**

5. Simplify: A. $\frac{14x^6y^4}{7x^5y^3}$. **$2xy$** B. $(2^2)^4$ **256**

6. Simplify: $7x^5 + (4x)^2(5x^3)$ **$87x^5$**

7. Add $(7x^2 - 6x - 4)$ and $(4x^3 - 8x^2 + 5)$. **$4x^3 - x^2 - 6x + 1$**

8. Subtract $(3x^2 - 4x + 8)$ from $(x - 7)$. **$-3x^2 + 5x - 15$**

9. Multiply and simplify: $(4x - 5)(3x + 4)$. **$12x^2 + x - 20$**

10. Divide and simplify: $\frac{12x^5 - 6x^4 + 3x^2}{3x^2}$. **$4x^3 - 2x^2 + 1$**

11. Solve $3x - 7 - 6x = 5$ for x . **$x = -4$**

12. Solve $x - 1 = 2(x - 2)$ for x . **$x = 3$**

13. Factor completely: $x^2 + 2x - 15$. **$(x + 5)(x - 3)$**

14. Factor completely: $9x^2 - 25$. **$(3x + 5)(3x - 5)$**

15. Factor completely: $4x^2 - 20x$. **$4x(x - 5)$**

16. Find the slope of the line containing the points $(-1, -2)$ and $(-2, 4)$. **-6**

17. Solve: $\frac{x}{4} = \frac{x}{3} - \frac{7}{12}$. **$x = 7$**

18. Solve the system: $\begin{cases} 2x + y = -3 \\ 3x - 5y = -50 \end{cases}$ **$(-5, 7)$**

19. The perimeter of a rectangle is 34 inches. The width is 3 inches more than the length. Find the length and the width.

The length is 7 ft and the width is 10 ft.

20. Graph the line with equation $y = 3x + 1$ in the grid below. Plot at least three points.

