

Algebra 1
Practice Chapter 7 Test

NAME _____

You MAY write on this test. Keep your eyes on your own paper. Write the letter for the best answer. (3 Points each)

1. Simplify $(3x^3)(5x^4)$

- A. $8x^7$ B. $8x^{12}$ C. $15x^7$ D. $12x^{12}$

2. Simplify $(4x^3y^6)(-6x^9y^5)$

- A. $-2x^{12}y^{11}$ B. $-2x^{27}y^{40}$ C. $-24x^{12}y^{11}$ D. $-24x^{27}y^{40}$

3. Simplify $(3x^5)^4$

- A. $12x^9$ B. $12x^{20}$ C. $81x^9$ D. $81x^{20}$

4. Simplify $\frac{x^9y^3}{x^4y^7}$

- A. $\frac{x^5}{y^4}$ B. $\frac{x^{13}}{y^{10}}$ C. $\frac{xy^{12}}{xy^{11}}$ D. $\frac{y^{27}}{x^{28}}$

5. Simplify $\left(\frac{3x^4}{2y^5}\right)^3$

- A. $\frac{9x^{12}}{6y^{15}}$ B. $\frac{9x^7}{6y^8}$ C. $\frac{27x^7}{8y^8}$ D. $\frac{27x^{12}}{8y^{15}}$

6. Simplify $\frac{(x^4y^2)^5}{(xy^4)^2}$

- A. $\frac{x^{22}}{y^{18}}$ B. $\frac{x^{11}}{y^{13}}$ C. $x^{18}y^2$ D. $\frac{x^7}{y}$

7. Simplify $\frac{x^{-3}y^{-6}}{x^{-2}y^{-8}}$

- A. $\frac{y^2}{x}$ B. $\frac{x^5}{y^{14}}$ C. $\frac{y^{-14}}{x^{-5}}$ D. $\frac{y^{48}}{x^6}$

8. Simplify $\frac{(x^2y^3)^{-2}}{(x^5y)^{-3}}$

- A. $\frac{y^3}{x^{11}}$ B. $\frac{x^{11}}{y^6}$ C. $\frac{x^{11}}{y^3}$ D. $\frac{x^{11}}{y^4}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Points(24) _____

9. Find the degree of the polynomial $6x^4 + 3x^6 - 7$

- A. 0 B. 1 C. 4 D. 6

10. Find the degree of the polynomial $3x^5y^4 - 7x^3y^5 + 8xy^6$

- A. 6 B. 7 C. 8 D. 9

11. Express 954,000 in scientific notation.

- A. 9.54×10^5 B. 9.54×10^6 C. 9.54×10^{-5} D. 9.54×10^{-6}

9. _____

12. Express .00000954 in scientific notation.

- A. 9.54×10^5 B. 9.54×10^6 C. 9.54×10^{-5} D. 9.54×10^{-6}

10. _____

13. Write $x^3 - 5 + 6x^4 + 3x$ in standard form.

- A. $6x^4 + 3x + x^3 - 5$ B. $6x^4 - 5 + 3x + x^3$
C. $-5 + 3x + x^3 + 6x^4$ D. $6x^4 + x^3 + 3x - 5$

11. _____

12. _____

14. Find $(4x + 9y) + (6x - 7y)$

- A. $24x - 63y$ B. $24x + 63y$ C. $10x - 2y$ D. $10x + 2y$

13. _____

14. _____

15. Find $(5x - 2y) - (3x - y)$

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

15. _____

16. _____

16. Simplify $3(x^2 + 2x) - x(x + 1)$

- A. $4x^2 + x$ B. $2x^2 + 7x$ C. $2x^2 + 3x$ D. $2x^2 + 5x$

17. Kara and Jordan are both saving money to buy a car. The equations below represent the amount of money each saves in m months. Which equation would represent the total amount of money T both girls have saved?

$K = 2,500 + 125m$ $J = 1,750 + 180m$

Points(27) _____

- A. $T = 4,250 + 305m$ B. $T = 1,875 + 260m$
C. $T = 2,680 + 305m$ D. $T = 3,250 + 205m$

18. Solve $4(3n - 1) = -2(n - 5)$

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

19. Solve $5(n - 9) = 11 + 4(2n - 2)$

- A. -16 B. 16 C. -23 D. 23

20. Solve $-3(5 - n) = 5(-2 - 4n)$

- A. $\frac{25}{23}$ B. $\frac{5}{23}$ C. $\frac{5}{17}$ D. $\frac{25}{17}$

18. _____

21. Solve $x(x - 4) - 3 = 3 + x(x + 2)$

- A. 2 B. -2 C. 1 D. -1

19. _____

20. _____

22. Find $(x + 6)(x + 3)$

- A. $x^2 + 3x + 18$ B. $9x^2 + 18$
C. $x^2 + 18$ D. $x^2 + 9x + 18$

21. _____

22. _____

23. _____

23. Find $(x + 3)(x - 4)$

- A. $x^2 - 7x - 12$ B. $x^2 - x - 12$
C. $x^2 - 12$ D. $x^2 + x - 12$

24. _____

25. _____

26. _____

24. Find $(2x - 6)(3x + 4)$

- A. $6x^2 - 18x - 24$ B. $6x^2 - 10x - 24$
C. $6x^2 - 24$ D. $6x^2 + 18x - 24$

25. Find $(4x - 1)(3x - 5)$

- A. $12x^2 - 23x + 5$ B. $12x^2 - 17x + 5$
C. $12x^2 + 5$ D. $12x^2 + 23x + 5$

Points(27) _____

26. Find $(2x + 6)^2$

- A. $4x^2 + 36$ B. $4x^2 - 24x + 36$
C. $4x^2 - 36$ D. $4x^2 + 24x + 36$

27. Find $(5x - 4)(5x + 4)$

A. $25x^2 + 16$

C. $25x^2 - 16$

B. $25x^2 + 40x - 16$

D. $25x^2 - 40x - 16$

28. Find $(5x + 4)(3x - 8)$

A. $8x^2 + 4x - 4$

C. $15x^2 - 28x - 32$

B. $8x^2 - 20x - 4$

D. $15x^2 - 52x - 32$

29. Find $(4x - 4)(3x - 7)$

A. $12x^2 - 40x - 28$

C. $12x^2 + 40x + 28$

B. $12x^2 - 40x + 28$

D. $12x^2 + 40x - 28$

27. _____

28. _____

30. Find $(4x - 5y)(3x + 3y)$

A. $20x^2 - 3xy - 15y^2$

C. $20x^2 - 27xy - 15y^2$

B. $20x^2 + 3xy - 15y^2$

D. $20x^2 + 27xy - 15y^2$

29. _____

30. _____

31. Find $(3x + 4y)(6x - y)$

A. $18x^2 + 21xy - 4y^2$

C. $18x^2 + 21xy + 4y^2$

B. $18x^2 - 4y^2$

D. $18x^2 - 21xy - 4y^2$

31. _____

32. _____

33. _____

32. Find $(3x + 2)(x^2 - 3x + 1)$

A. $3x^3 - 11x^2 - 3x + 2$

C. $3x^3 - 7x^2 - 3x + 2$

B. $3x^3 - 7x^2 + 3x + 2$

D. $3x^3 - 7x^2 - 3x + 3$

33. Find $(2x^2 + 3x + 4)(x^2 - 3x + 2)$

A. $2x^4 + 3x^3 + x^2 - 6x + 8$

C. $2x^4 - 3x^3 + x^2 - 6x + 8$

B. $2x^4 + 3x^3 - x^2 - 6x + 8$

D. $2x^4 - 3x^3 - x^2 - 6x + 8$

Points(21)_____