

LESSON PRACTICE

Write on one line.

1. $\frac{1}{8^{-2}} =$

2. $\frac{1}{5^3} =$

Rewrite using positive exponents.

3. $7^{-1} =$

4. $X^{-6} =$

Simplify each expression and write it on one line.

5. $4^{-8} \cdot 4^5 =$

6. $6^{-4} \cdot 6^{-2} =$

7. $(3^{-3})^2 =$

8. $(A^4)^{-5} =$

9. $(4^{-2})^3 =$

10. $C^0 D^{-5} D^6 C^1 C^2 C^3 =$

Simplify each expression and write it on one line.

11. $E^0 F^3 F^4 E^{-5} F^{-2} E^{-6} =$

12. $B^{-6} C^1 C^2 C^3 C^{-4} B^7 =$

13. $Y^{-10} \cdot Y^5 \div Y^3 =$

14. $A^{8X} \div A^{3X} =$

15. $\frac{X^{-5}Y^2X^3Y^2}{Y^{-3}Y^4X^2} =$

16. $\frac{A^{-3}B^2A^5B^3}{B^4A^{-3}A^5} =$

SYSTEMATIC REVIEW

Simplify as directed.

1. Write on one line: $\frac{1}{3^2}$

2. Rewrite using positive exponents: 2^{-4}

3. Write on one line: $\frac{1}{7^{-2}}$

4. Rewrite using positive exponents: Y^{-5}

Simplify each expression and write it on one line.

5. $4^5 \cdot 4^{-2} =$

6. $5^{-2} \cdot 5^{-6} =$

7. $A^{-8} B^{-2} A^3 A^4 B^5 =$

8. $D^{-2} C^3 C^4 D^4 C^{-2} D^4 =$

9. $4^{-10} \cdot 4^6 =$

10. $X^5 \div X^4 =$

11. $(3^3)^2 =$

12. $(2^5)^7 =$

13. $(-8)^2 =$

14. $\sqrt{25} =$

15. $\frac{E^{-1}F^2F^3E^4}{F^{-2}E^{-3}E^5} =$

16. What number is this? $1 \times 10^3 + 3 \times 10^2 + 7 \times 10^0 + 8 \times 10^{-2}$
(This is exponential notation.)

For #17–18: Find three consecutive odd integers such that three times the first integer, plus four times the second, equals negative thirteen times the third integer.

17. Write the equation using unknowns.

18. Solve the equation to find the integers.

19. Seven nickels and dimes have a total value of \$.45.
How many are there of each coin?

20. Write $5X + 10Y - 20 = 0$ in the slope-intercept form.

SYSTEMATIC REVIEW

Simplify as directed.

1. Write on one line: $\frac{1}{4^{-5}}$

2. Rewrite using positive exponents: 5^{-8}

3. Write on one line: $\frac{1}{X^5}$

4. Rewrite using positive exponents: A^{-1}

Simplify each expression and write it on one line.

5. $X^A \cdot X^B =$

6. $3^{-2} \cdot 3^8 =$

7. $E^0 F^5 E^{-1} F^{-2} E^3 F^3 =$

8. $C^{-8} B^5 C^1 C^2 B^{-6} C^4 =$

9. $7^{-3} \div 7^{-6} =$

10. $X^{10Y} \div X^{5Y} =$

11. $(10^3)^4 =$

12. $(1,000^5) = 10^?$

13. $-5^2 =$

14. $-\sqrt{36} =$

15.
$$\frac{C^5 D^4 D^{-3}}{D^{-2} C^1 C^{-3} D^4} =$$

16. What number is this? $2 \times 10^4 + 5 \times 10^1 + 6 \times 10^{-1} + 9 \times 10^{-2}$

For #17–18: Find three consecutive even integers such that three times the first integer, plus six times the second, equals eight times the third, minus fourteen.

17. Write the equation using unknowns.

18. Solve the equation to find the integers.

19. Eleven quarters and dimes have a total value of \$2.15.
How many are there of each coin?

20. Solve for X and Y: $Y - X = 0$, $Y - 3X = -4$