

What Did People Say When Walter Gearloose Tried to Drag His Sheep Across a Frozen Pond?



Write the letter of each correct answer in the box containing the exercise number.

Simplify the expression.

1. 5³ • 5²

11. 32 • 33

R. 59,049

- | | | | | | | | | | | | |
|----|-------------------------|----|-------------|----|--------------------|----|-----------------------------|----|-------------------------------|----|----------|
| 1. | $5^3 \cdot 5^2$ | S. | 5^4 | N. | $3^2 \cdot 3^3$ | N. | -243 | O. | $21. 40^8 \div 40^5$ | R. | $59,049$ |
| 2. | $(-5)^7 \cdot (-5)^4$ | A. | $(-5)^{11}$ | T. | $(-5)^7$ | S. | -81 | H. | $22. \frac{(-40)^4}{(-40)^3}$ | O. | $64,000$ |
| 3. | $5^8 \div 5^5$ | W. | 5^5 | | $13. 8^7 \div 8^4$ | H. | -512 | G. | $23. (-9)^2 \cdot (-9)^2$ | G. | 729 |
| 4. | $(-5)^{10} \div (-5)^3$ | I. | 5 | | | G. | 512 | I. | $24. 9 \cdot 9 \cdot 9^3$ | E. | 6561 |
| 5. | $\frac{5^6}{5^5}$ | L. | 5^3 | | | H. | $(-5)^9$ | A. | -64 | O. | 1 |
| | | | | | | I. | $14. \frac{(-8)^5}{(-8)^3}$ | | | N. | -1600 |
| | | | | | | L. | $15. \frac{(-8)^4}{-8}$ | T. | $25. \frac{9^2}{9^2}$ | V. | -40 |

• 64 •

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Number Theory:
Multiplying and Dividing Powers

Write the expression without exponents.

Write the expression without exponents.

Write the expression without exponents.

- | Simplify the expression. | | Write the expression without exponents. | | Write the expression without exponents. | |
|---|-------------------------|---|--------------------------|---|-----------------------------------|
| 1. | $5^3 \cdot 5^2$ | S. | 5^4 | 11. | $3^2 \cdot 3^3$ |
| 2. | $(-5)^7 \cdot (-5)^4$ | A. | $(-5)^{11}$ | 12. | $(-3)^2 \cdot (-3)^3$ |
| 3. | $5^8 \div 5^5$ | T. | $(-5)^7$ | 13. | $8^7 \div 8^4$ |
| 4. | $(-5)^{10} \div (-5)^3$ | W. | 5^5 | 1. | 5 |
| 5. | $\frac{5^6}{5^5}$ | I. | $\frac{(-8)^5}{(-8)^3}$ | 14. | $\frac{(-8)^5}{(-8)^3}$ |
| | | L. | 5^3 | 15. | $\frac{(-8)^4}{-8}$ |
| Simplify the expression. | | | | | |
| 6. | $x^9 \cdot x^2$ | U. | $(-x)^{12}$ | 16. | $10^3 \cdot 10$ |
| 7. | $x^9 \div x^2$ | L. | x^8 | 17. | $-10 \cdot (-10)^5$ |
| 8. | $(-x)^6 \cdot (-x)^6$ | S. | x^{11} | 18. | $\frac{(-10)^{12}}{(-10)^7}$ |
| 9. | $\frac{x^4}{x}$ | R. | $(-x)^{30}$ | 19. | $2^2 \cdot 2^3 \cdot 2^2$ |
| 10. | $x \cdot x^7$ | L. | x^3 | P. | x^7 |
| | | N. | x^6 | 20. | $\frac{(-2)^{11}}{(-2)^4}$ |
| Simplify the expression. | | | | | |
| | | S. | -81 | 21. | $40^8 \div 40^5$ |
| | | H. | -512 | 22. | $\frac{(-40)^4}{(-40)^3}$ |
| | | G. | 512 | 23. | $(-9)^2 \cdot (-9)^2$ |
| | | E. | 6561 | I. | 243 |
| | | O. | 1 | 24. | $9 \cdot 9 \cdot 9^3$ |
| | | N. | -243 | A. | -64 |
| | | G. | 512 | T. | 64 |
| | | V. | -8 | 25. | $\frac{9^2}{9^2}$ |
| What value of n makes the statement true? | | | | | |
| | | 26. | $5^7 \cdot 5^n = 5^{10}$ | E. | 0 |
| | | A. | $-10,000$ | 27. | $(-8)^n \cdot (-8)^4 = (-8)^{15}$ |
| | | L. | -128 | W. | $1,000,000$ |
| | | D. | -64 | 28. | $12^{10} \div 12^n = 12^2$ |
| | | R. | $10,000$ | P. | $10,000$ |
| | | N. | $-100,000$ | 29. | $m \cdot m^n = m^{13}$ |
| | | O. | $100,000$ | 30. | $\frac{m^4}{m^4} = m^n$ |

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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