

A.A.12: Division of Powers 1: Multiply and divide monomial expressions with a common base, using the properties of exponents. Note: Use integral exponents only

- 1 What is half of 2^6 ?
1) 1^3 2) 1^6 3) 2^3 4) 2^5
- 2 What is one-third of 3^6 ?
1) 1^2 2) 3^2 3) 3^5 4) 9^6
- 3 The quotient of $-\frac{15x^8}{5x^2}$, $x \neq 0$, is
1) $-3x^4$ 2) $-10x^4$ 3) $-3x^6$ 4) $-10x^6$
- 4 The expression $\frac{-32x^8}{4x^2}$, $x \neq 0$, is equivalent to
1) $8x^4$ 2) $8x^6$ 3) $-8x^4$ 4) $-8x^6$
- 5 When $-9x^5$ is divided by $-3x^3$, $x \neq 0$, the quotient is
1) $-3x^2$ 2) $3x^2$ 3) $-27x^{15}$ 4) $27x^8$
- 6 Which expression represents $\frac{(2x^3)(8x^5)}{4x^6}$ in simplest form?
1) x^2 2) x^9 3) $4x^2$ 4) $4x^9$
- 7 The expression $\frac{12w^9y^3}{-3w^3y^3}$ is equivalent to
1) $-4w^6$ 2) $-4w^3y$ 3) $9w^6$ 4) $9w^3y$
- 8 Which expression represents $\frac{27x^{18}y^5}{9x^6y}$ in simplest form?
1) $3x^{12}y^4$ 2) $3x^3y^5$ 3) $18x^{12}y^4$ 4) $18x^3y^5$
- 9 The expression $\frac{24x^6y^3}{-6x^3y}$ is equivalent to
1) $-4x^2y^3$ 2) $-4x^3y^3$ 3) $-4x^9y^4$ 4) $-4x^3y^2$
- 10 Which expression represents $\frac{-14a^2c^8}{7a^3c^2}$ in simplest form?
1) $-2ac^4$ 2) $-2ac^6$ 3) $\frac{-2c^4}{a}$ 4) $\frac{-2c^6}{a}$
- 11 The expression $\frac{5x^6y^2}{x^8y}$ is equivalent to
1) $5x^2y$ 2) $\frac{5y}{x^2}$ 3) $5x^{14}y^3$ 4) $\frac{5y^3}{x^{14}}$
- 12 The expression $\frac{4x^2y^3}{2xy^4}$ is equivalent to
1) $\frac{2x}{y}$ 2) $\frac{2y}{x}$ 3) $2xy$ 4) $-2xy$
- 13 The product of $\frac{4x^2}{7y^2}$ and $\frac{21y^3}{20x^4}$, expressed in simplest form, is
1) $0.6x^2y$ 2) $\frac{3y}{5x^2}$ 3) $\frac{12x^2y^3}{20x^4y^2}$ 4) $\frac{84x^2y^3}{140x^4y^2}$
- 14 Simplify: $\frac{27k^5m^8}{(4k^3)(9m^2)}$

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Answer Section

1 ANS: 4

$$\frac{2^6}{2^1} = 2^5$$

REF: 060813ia

2 ANS: 3

$$\frac{3^6}{3^1} = 3^5$$

REF: 061219ia

3 ANS: 3 REF: 060005a

4 ANS: 4 REF: 060707a

5 ANS: 2 REF: 080405a

6 ANS: 3

$$\frac{(2x^3)(8x^5)}{4x^6} = \frac{16x^8}{4x^6} = 4x^2$$

REF: fall0703ia

7 ANS: 1 REF: 061103ia

8 ANS: 1 REF: 060903ia

9 ANS: 4 REF: 011503ia

10 ANS: 4 REF: 061018ia

11 ANS: 2 REF: 080526a

12 ANS: 1 REF: 010817a

13 ANS: 2 REF: 081311ia

14 ANS:

$$\frac{3k^2m^6}{4}$$

REF: 010932ia