

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

1. 060813ia, P.I. A.A.12

What is half of 2^6 ?

- [A] 2^3 [B] 1^3 [C] 1^6 [D] 2^5

2. 080405a, P.I. A.A.12

When $-9x^5$ is divided by $-3x^3$, $x \neq 0$, the quotient is

- [A] $-3x^2$ [B] $-27x^{15}$
[C] $3x^2$ [D] $27x^8$

3. 060005a, P.I. A.A.12

The quotient of $-\frac{15x^8}{5x^2}$, $x \neq 0$, is

- [A] $-3x^6$ [B] $-3x^4$
[C] $-10x^4$ [D] $-10x^6$

4. 060707a, P.I. A.A.12

The expression $\frac{-32x^8}{4x^2}$, $x \neq 0$, is equivalent to

- [A] $8x^6$ [B] $-8x^6$
[C] $8x^4$ [D] $-8x^4$

5. 080526a, P.I. A.A.12

The expression $\frac{5x^6y^2}{x^8y}$ is equivalent to

- [A] $5x^{14}y^3$ [B] $\frac{5y^3}{x^{14}}$
[C] $5x^2y$ [D] $\frac{5y}{x^2}$

6. 010817a, P.I. A.A.12

The expression $\frac{4x^2y^3}{2xy^4}$ is equivalent to

- [A] $2xy$ [B] $\frac{2x}{y}$ [C] $\frac{2y}{x}$ [D] $-2xy$

7. 060903ia, P.I. A.A.12

Which equation represents $\frac{27x^{18}y^5}{9x^6y}$ in simplest form?

- [A] $18x^3y^5$ [B] $18x^{12}y^4$
[C] $3x^3y^5$ [D] $3x^{12}y^4$

8. fall0703ia, P.I. A.A.12

Which expression represents $\frac{(2x^3)(8x^5)}{4x^6}$ in simplest form?

- [A] x^2 [B] x^9 [C] $4x^2$ [D] $4x^9$

9. 010932ia, P.I. A.A.12

Simplify: $\frac{27k^5m^8}{(4k^3)(9m^2)}$

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[1] D _____

[2] C _____

[3] A _____

[4] B _____

[5] D _____

[6] B _____

[7] D _____

[8] C _____

[2] $\frac{3k^2m^6}{4}$ or an equivalent answer, and

appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] $\frac{3k^2m^6}{4}$, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[9] incorrect procedure. _____