

NAME: _____

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

1. 080827ia, P.I. A.A.12

Which expression is equivalent to $(3x^2)^3$?

[A] $27x^6$ [B] $9x^6$ [C] $27x^5$ [D] $9x^5$

2. 010728a, P.I. A.A.12

The expression $(6x^3y^6)^2$ is equivalent to

[A] $36x^6y^{12}$ [B] $36x^5y^8$
[C] $6x^6y^{12}$ [D] $12x^6y^{12}$

3. 080824a, P.I. A.A.12

The expression $(-4a^3b)^2$ is equivalent to

[A] $8a^6b^2$ [B] $16a^6b^2$
[C] $16a^5b^2$ [D] $-16a^6b^2$

4. 010506a, P.I. A.A.12

The product of $(5ab)$ and $(-2a^2b)^3$ is

[A] $-40a^6b^4$ [B] $-30a^6b^4$
[C] $-30a^7b^4$ [D] $-40a^7b^4$

5. 010529a, P.I. A.A.12

Expressed in its simplest form,
 $(3x^3)(2y)^2(4x^4)$ is equivalent to

[A] $48x^7y^2$ [B] $24x^{12}y^2$
[C] $48x^{12}y^2$ [D] $24x^7y^2$

6. 060518a, P.I. A.A.12

If $x \neq 0$, then $\frac{(x^2)^3}{x^5} \cdot 1000$ is equivalent to

[A] 0 [B] $1000 + x$
[C] $1000x$ [D] 1000

7. 080415b, P.I. A.A.12

The expression $\frac{(b^{2n+1})^3}{b^n \cdot b^{4n+3}}$ is equivalent to

[A] $\frac{b^n}{2}$ [B] b^{-3n+1} [C] b^n [D] b^{-3n}

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[1] A

[2] A

[3] B

[4] D

[5] A

[6] C

[7] C