

Section 5-8: Dividing by a Monomial

Dividing a Monomial by a Monomial

1. 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] $27x^8$

2. 060005a, P.I. A.A.12

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

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

3. 060707a, P.I. A.A.12

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

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

4. 010817a, P.I. A.A.12

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

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

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

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

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

6. 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] $4x^9$ [D] $4x^2$

7. 060518a, P.I. A.A.12

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

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

8. 080415b, P.I. A.A.12

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

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

Dividing a Polynomial by a Monomial

9. 060506a, P.I. A.A.14

When $3x^2 - 6x$ is divided by $3x$, the result is

- [A] $x - 2$ [B] $x + 2$
[C] $2x$ [D] $-2x$

10. 010724a, P.I. A.A.14

The expression $(50x^3 - 60x^2 + 10x) \div 10x$ is equivalent to

- [A] $5x^3 - 6x^2 + x$ [B] $5x^2 - 60x^2 + 10x$
[C] $5x^2 - 6x$ [D] $5x^2 - 6x + 1$

- [1] C
- [2] D
- [3] D
- [4] A
- [5] C
- [6] D
- [7] A
- [8] A
- [9] A
- [10] D