



Multiplying by a Monomial

Name _____

Directions: Answer these questions pertaining to polynomials.

1. Multiply: $(8a^3)(4a^2)$

[1] $32a^5$

[2] $12a^5$

[3] $32a^6$

[4] $12a^6$

1. _____

2. Multiply: $(-3x^2)^3$

[1] $9x^5$

[2] $9x^6$

[3] $-27x^5$

[4] $-27x^6$

2. _____

3. Multiply: $(-5m^2n)(-3m^4n^2)$

[1] $15m^8n^2$

[2] $15m^6n^3$

[3] $-15m^8n^2$

[4] $-15m^6n^3$

3. _____

4. Multiply: $(3x^2)(2x^3)(-4x^2)$

[1] $-24x^{12}$

[2] $-24x^7$

[3] $-24x^8$

[4] $-24x^6$

4. _____

5. Multiply: $(-5w^2)\left(\frac{3}{4}w^3\right)\left(\frac{1}{3}w^{-1}\right)$

[1] $\frac{-15}{12}w^{-6}$

[2] $\frac{-8}{7}w^5$

[3] $\frac{-5}{4}w^6$

[4] $\frac{-5}{4}w^4$

5. _____

6. Multiply: $-3b(3b^3 + 4b^2)$

- [1] $-9b^4 + 12b^3$ [2] $-9b^3 - 12b^2$ [3] $-9b^4 - 12b^3$ [4] $-9b^3 + 12b^2$

6. _____

7. Find: $3xy(2x^2 + y^2 - 2)$

- [1] $6x^2y + 3xy^2 - 6xy$ [2] $6x^3y^2 + 3x^2y^3 - 6xy$
[3] $6x^3 + 3y^3 - 6$ [4] $6x^3y + 3xy^3 - 6xy$

7. _____

8. Simplify: $(6x)(3x^2 - 4) - 5x$

- [1] $18x^3 - 19x$ [2] $18x^3 - 30x^2 - 24x$ [3] $18x^3 - 29x$ [4] $18x^3 + 19x$

8. _____

9. Simplify: $8a - 2(4a - a)$

- [1] $8a + 1$ [2] $-2a$ [3] $4a$ [4] $2a$

9. _____

10. Which choice is NOT equivalent to: $5x(4x^2 - 2x)$

- [1] $20x^3 - 10x^2$ [2] $5x^2(4x - 2)$ [3] $5x^3(4x - 2)$ [4] $10x^2(2x - 1)$

10. _____