Practice Test for Polynomial Unit

Learning Objectives:

- A. Simplify expressions using exponents.
- B. Identify whether an equation is an identity.
- C. Add and subtract polynomial functions.
- D. Multiply polynomial functions.

Question #	Learning Objective	Know It	Feel Unsure	Right	Wrong	Simple Mistake	Need to Study
1	A						
2	В						
3	С						
4	D						

- Simplify: $(3x^2yz^3)^2(-4xyz^5)^3$
- 2. Which of these equations are identities? How do you know?

a)
$$(x+3)^2 = x^2 + 9$$

b)
$$x^2 - 9 = (x + 3)(x - 3)$$

c)
$$2(x-3) = 2x + 6$$

a)
$$(x+3)^2 = x^2 + 9$$
 b) $x^2 - 9 = (x+3)(x-3)$ c) $2(x-3) = 2x + 6$
3. Given $f(x) = 5x^4 - 3x^3 + 5x - 3$ and $g(x) = 2x^4 + 6x^2 - 7x - 3$, find $f(x) + g(x)$ and $f(x) - g(x)$.
4. Given $f(x) = 3x + 4$ and $g(x) = x^2 - 3x - 7$, find $f(x) \cdot g(x)$.

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