

1. Determine the coefficient of each term, the degree of each term, and the degree of the polynomial.

$$12x^4y - 5x^3y^7 - x^2 + 4$$

Term	Coefficient	Degree

Degree of the polynomial: _____

2. Add: $(6x^2 - 3x + 7) + (-2x^2 + 3x - 11)$

3. Subtract: $(5x^4y^2 + 6x^3y - 7y) - (3x^4y^2 - 5x^3y - 6y + 8x)$

4. Simplify: $(3x^3 + 7x^2 - 2x) + (5x^3 - 2x^2 + 8x) - (-2x^3 + 6x^2 + 1)$

5. Multiply.

a) $-5xy(8x + 3y - 2x^2y^3)$

b) $(3x - y)(2x + 5y)$

c) $(x^2 - 2x + 3)(x^2 + x + 1)$

d) $(3x + 4y)^2$

e) $(5xy^2 - xy)^2$

f) $(3x + 2)(3x - 2)$

g) $(x + 5)^3$

h) $-2x(x + 3)(5x - 1)$

Q: What has many keys but can't open any doors?