

Arithmetic with Polynomials - Worksheet 1

P and Q are polynomials where

$$P = x^2 + 3x - 4,$$

$$Q = x + 5.$$

Simplify the following:

1. $P + Q$

2. $P - Q$

3. $Q - P$

4. QP

5. How many terms are in P ? How many terms are in Q ?

6. How does the number of terms change if you add P and Q ? If you multiply P and Q ?

7. Can you determine the number of terms when a polynomial of degree m is multiplied to a polynomial of degree n ?

Johnny and Karine have invested some of their money in the stock market, which has been fluctuating over time. The projected value of Johnny's assets after t years is $t^3 + 2t^2 - 3t + 400$. Karine's projected assets after t years is $t^4 - 5t^2 + 100$.

8. How much money did each of them invest?

9. What is their combined wealth after seven years?

10. What is their combined wealth after t years?

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