

Polynomials Review

Degree	Name
0	Constant
1	Linear
2	Quadratic
3	Cubic
4	Quartic
5	Quintic
6 or more	6 th , 7 th , degree and so on

Terms	Name
1	Monomial
2	Binomial
3	Trinomial
4 or more	Polynomial

1. Give an example of :

- a quintic polynomial:
- a quartic monomial:
- a 10th degree binomial:

2. Create a cubic trinomial and a quadratic binomial whose sum is a cubic binomial.

_____ + _____ = _____

3. Draw algebra Tiles for the following:

a. $(x + 3)(x - 3)$ Why is this called “difference of squares”?

b. $(x + 3)^2$ Why is the result of this a “perfect square trinomial”?

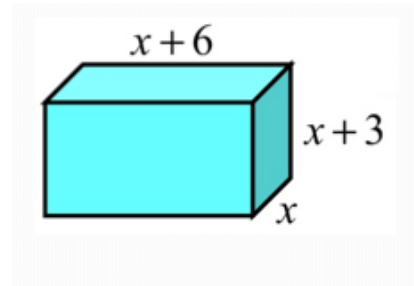
Simplify:

4. $10(2x + 5)(2x - 5)$

5. $(6x - 2)^2$

6. $(3x + 1)(3x - 1)(x + 2)^2$

7. Write an expression for the volume of the rectangular box.



8. Kyra is framing a square painting with side lengths of $(x + 8)$ inches. The total area of the painting and the frame has a side length of $(2x - 6)$ inches. The material for the frame will cost \$0.08 per square inch. Write an expression for the area of the frame. Then find the cost of the material for the frame if $x = 16$.

9. A square patio has a side length of $(x - 3)$ feet. It is surrounded by a flower garden with a uniform width. The side length of the entire square area including the patio and the flower garden is $(x + 3)$ feet. Write an expression for the area of the flower garden. Draw a picture!

10. Which of the following is equivalent to $14q^2 + 8pq - 9p^2 + 40pq - 70q^2 + 17p^2$?

- A. $-40p^2q^2 + 48pq$
- B. $110p^2q^2 + 48pq$
- C. $8(p + 7q)(p - q)$
- D. $8(p^2 + 48pq - 56q^2)$