

## Multiplying Polynomials

**Simplify:**

1.  $(x + 3)(x - 7)$

2.  $(2x - 4)(x + 6)$

3.  $(-3x - 5)(2x - 9)$

4.  $(x + 5)(x^2 + 4x + 8)$

5.  $(x + 2)(3x^2 + 3x - 7)$

6.  $(x - 1)(2x^2 - 6x - 4)$

7.  $(4x - 2)(x + 6)(3x + 3)$

8.  $(2x + 1)(3x + 2)(x + 5)$

**Situation 1:** There is a square garden and the garden is going to be expanded in two directions. The length and width of the garden are going to be expanded by 3 feet. What is the area of the resulting garden?

Area = \_\_\_\_\_

**Situation 2:** Find the area of the shaded region.

