

Name _____

Date _____

9) $(6x + 2)(x + 5)$

Use the FOIL method to find the product. Express the product in descending powers of the variable.

1) $(x - 7)(x - 1)$

10) $(x + 8)(2x - 9)$

2) $(x + 6)(x + 3)$

11) $(6x - 6)(5x - 8)$

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

12) $(-3x^2 + 5)(5x^2 + 12)$

4) $(x + 4)(7x + 8)$

13) $(6 + 3x)(7 - 5x)$

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

14) $(x - 7)(x^2 - 5)$

6) $(2x^2 - 2)(5x^2 + 9)$

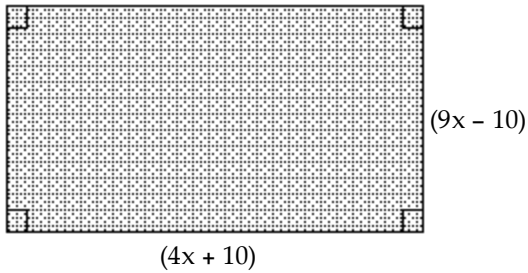
15) $(x - 3)(x^2 + 9)$

7) $(8 - 4x)(6 - 4x)$

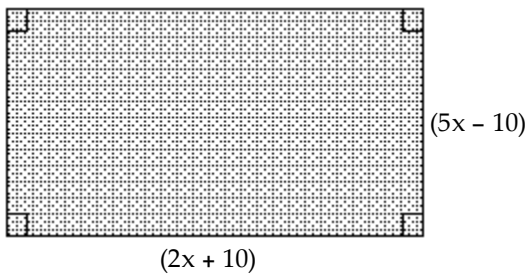
8) $(x + 6)(x^2 + 3)$

Find the area of the shaded region. Write the answer as a polynomial in descending powers of x .

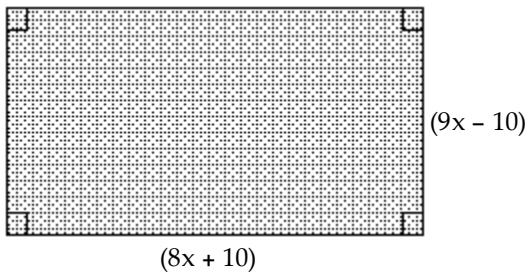
16)



17)

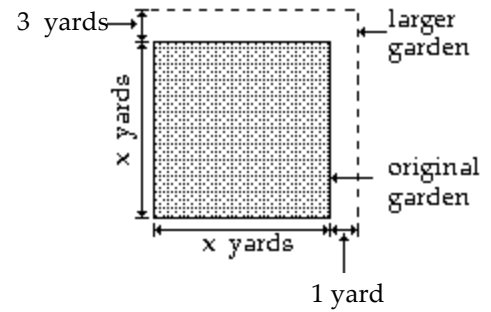


18)

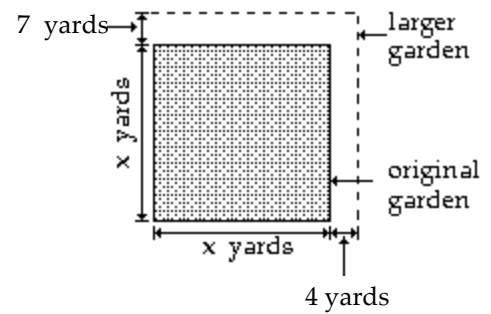


Solve.

19) The square garden in the figure measures x yards on each side. The garden is to be expanded so that one side (the top of the figure) is increased by 3 yards and the adjacent side (the right side of the figure) is increased by 1 yard. Write a polynomial in descending powers of x that expresses the area of the larger garden. Then use the polynomial to determine the area of the larger garden if the original garden measures 8 yards on a side.



20) The square garden in the figure measures x yards on each side. The garden is to be expanded so that one side (the top of the figure) is increased by 7 yards and the adjacent side (the right side of the figure) is increased by 4 yards. Write a polynomial in descending powers of x that expresses the area of the larger garden. Then use the polynomial to determine the area of the larger garden if the original garden measures 5 yards on a side.



Answer Key

Testname: 06_31MULTIPLYINGPOLYNOMIALSV02

- 1) $x^2 - 8x + 7$
- 2) $x^2 + 9x + 18$
- 3) $7x^2 - 22x - 24$
- 4) $7x^2 + 36x + 32$
- 5) $10x^2 - 33x + 27$
- 6) $10x^4 + 8x^2 - 18$
- 7) $16x^2 - 56x + 48$
- 8) $x^3 + 6x^2 + 3x + 18$
- 9) $6x^2 + 32x + 10$
- 10) $2x^2 + 7x - 72$
- 11) $30x^2 - 78x + 48$
- 12) $-15x^4 - 11x^2 + 60$
- 13) $-15x^2 - 9x + 42$
- 14) $x^3 - 7x^2 - 5x + 35$
- 15) $x^3 - 3x^2 + 9x - 27$
- 16) $36x^2 + 50x - 100$
- 17) $10x^2 + 30x - 100$
- 18) $72x^2 + 10x - 100$
- 19) $x^2 + 4x + 3$; 99 square yards
- 20) $x^2 + 11x + 28$; 108 square yards