

Name \_\_\_\_\_

Date \_\_\_\_\_

**Additional Exercises 5.3**  
**Form I**  
Special Products

Perform the indicated operations.

1.  $(x + 4)(x - 3)$  1. \_\_\_\_\_

2.  $(2x - 1)(x + 4)$  2. \_\_\_\_\_

3.  $(3x - 5)(4x + 7)$  3. \_\_\_\_\_

4.  $(5 - x)(7 - 2x)$  4. \_\_\_\_\_

5.  $(x + 5)(x^2 - 25)$  5. \_\_\_\_\_

6.  $(a + 2)(a - 2)$  6. \_\_\_\_\_

7.  $(3 + m)(3 - m)$  7. \_\_\_\_\_

8.  $(5 - 7r)(5 + 7r)$  8. \_\_\_\_\_

9.  $\left(3x + \frac{1}{3}\right)\left(3x - \frac{1}{3}\right)$  9. \_\_\_\_\_

10.  $(x^2 + 1)(x^2 - 1)$  10. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

11.  $(n+11)^2$

11. \_\_\_\_\_

12.  $(w-8)^2$

12. \_\_\_\_\_

13.  $(3a-7)^2$

13. \_\_\_\_\_

14.  $\left(2x + \frac{1}{2}\right)^2$

14. \_\_\_\_\_

15.  $\left(7x - \frac{1}{7}\right)^2$

15. \_\_\_\_\_

16.  $(8-4m)^2$

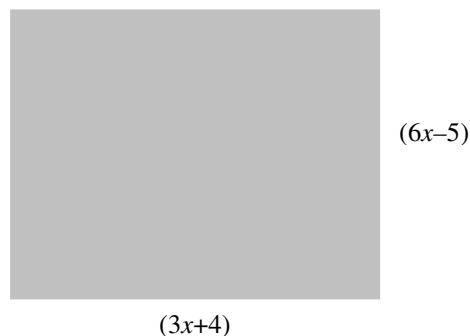
16. \_\_\_\_\_

17.  $(n^3+9)^2$

17. \_\_\_\_\_

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

18. \_\_\_\_\_

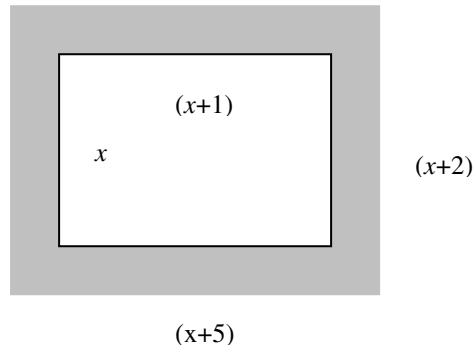


Name \_\_\_\_\_

Date \_\_\_\_\_

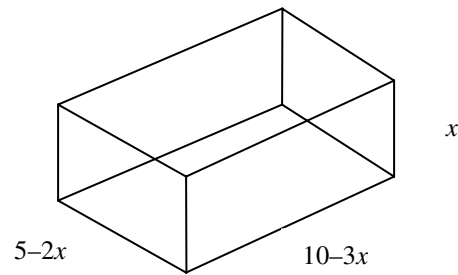
19. Find the area of the shaded region. Write the answer as a polynomial in descending powers of  $x$ .

19. \_\_\_\_\_



20. Express the volume of the box as a polynomial in standard form.

20. \_\_\_\_\_



Name \_\_\_\_\_

Date \_\_\_\_\_

**Additional Exercises 5.3**  
**Form II**  
Special Products

Perform the indicated operations.

1.  $(x+2)(x+8)$  1. \_\_\_\_\_

2.  $(4x+9)(x-6)$  2. \_\_\_\_\_

3.  $(2x-8)(6x+11)$  3. \_\_\_\_\_

4.  $(7-2x)(6-4x)$  4. \_\_\_\_\_

5.  $(x+3)(x^2-9)$  5. \_\_\_\_\_

6.  $(a-1)(a+1)$  6. \_\_\_\_\_

7.  $(4+m)(4-m)$  7. \_\_\_\_\_

8.  $(3-10r)(3+10r)$  8. \_\_\_\_\_

9.  $\left(5x + \frac{1}{5}\right)\left(5x - \frac{1}{5}\right)$  9. \_\_\_\_\_

10.  $(x^2+5)(x^2-5)$  10. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

11.  $(n+16)^2$

11. \_\_\_\_\_

12.  $(w-10)^2$

12. \_\_\_\_\_

13.  $(8a-9)^2$

13. \_\_\_\_\_

14.  $\left(3x + \frac{1}{3}\right)^2$

14. \_\_\_\_\_

15.  $(4x^2 - 3)^2$

15. \_\_\_\_\_

16.  $(11-10m)^2$

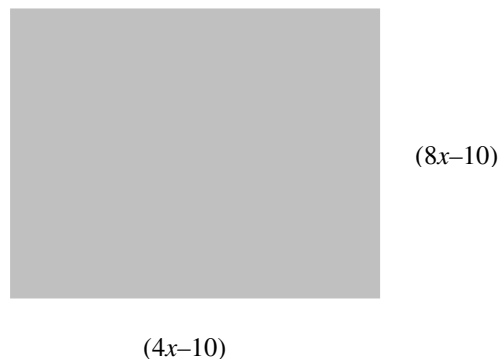
16. \_\_\_\_\_

17.  $(n^3 + 12)^2$

17. \_\_\_\_\_

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

18. \_\_\_\_\_

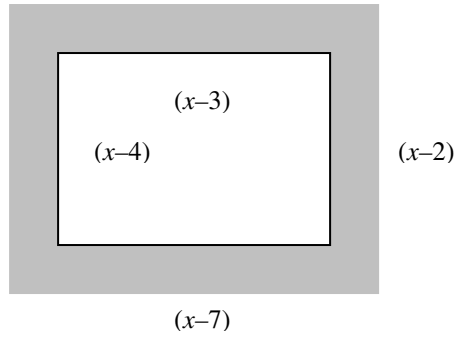


Name \_\_\_\_\_

Date \_\_\_\_\_

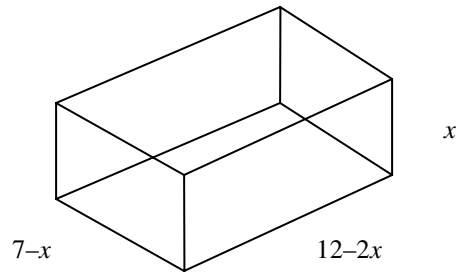
19. Find the area of the shaded region. Write the answer as a polynomial in descending powers of  $x$ .

19. \_\_\_\_\_



20. Express the volume of the box as a polynomial in standard form.

20. \_\_\_\_\_



Name \_\_\_\_\_

Date \_\_\_\_\_

**Additional Exercises 5.3**  
**Form III**  
Special Products

Perform the indicated operations.

1.  $(x+9)(x+4)$

1. \_\_\_\_\_

2.  $(5x+8)(x-7)$

2. \_\_\_\_\_

3.  $(3x-7)(4x+12)$

3. \_\_\_\_\_

4.  $(9-3x)(8-5x)$

4. \_\_\_\_\_

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

5. \_\_\_\_\_

6.  $(a-13)(a+13)$

6. \_\_\_\_\_

7.  $(7+m)(7-m)$

7. \_\_\_\_\_

8.  $(5-11r)(5+11r)$

8. \_\_\_\_\_

9.  $\left(8x + \frac{1}{8}\right)\left(8x - \frac{1}{8}\right)$

9. \_\_\_\_\_

10.  $(x^2+7)(x^2-7)$

10. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

11.  $(n + 21)^2$

11. \_\_\_\_\_

12.  $(w - 14)^2$

12. \_\_\_\_\_

13.  $(9a - 11)^2$

13. \_\_\_\_\_

14.  $\left(7x + \frac{1}{7}\right)^2$

14. \_\_\_\_\_

15.  $(3x^2 - 7)^2$

15. \_\_\_\_\_

16.  $(12 - 8m)^2$

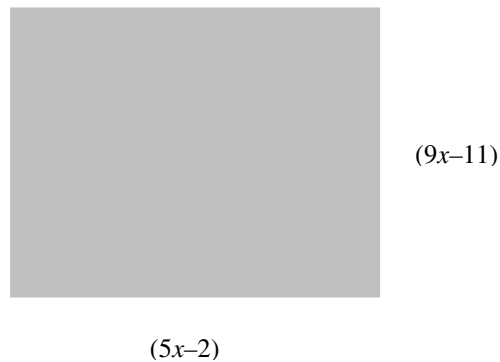
16. \_\_\_\_\_

17.  $(n^3 + 15)^2$

17. \_\_\_\_\_

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

18. \_\_\_\_\_



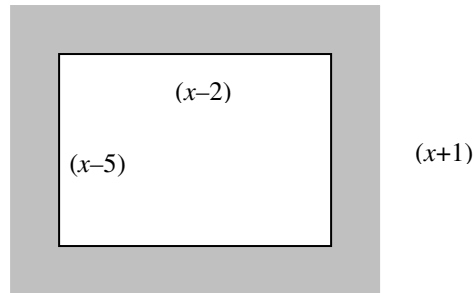


Name \_\_\_\_\_

Date \_\_\_\_\_

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

19. \_\_\_\_\_



20. Express the volume of the box as a polynomial in standard form.

20. \_\_\_\_\_

