



Examples 1–2 Find each product.

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

2. $(y - 2)(y + 4)$

3. $(b - 7)(b + 3)$

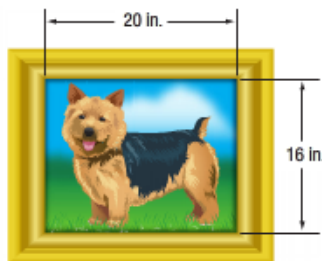
4. $(4n + 3)(n + 9)$

5. $(8h - 1)(2h - 3)$

6. $(2a + 9)(5a - 6)$

Example 3

7. **FRAME** Hugo is designing a frame as shown at the right. The frame has a width of x inches all the way around. Write an expression that represents the total area of the picture and frame.



Example 4

Find each product.

8. $(2a - 9)(3a^2 + 4a - 4)$

9. $(4y^2 - 3)(4y^2 + 7y + 2)$

10. $(x^2 - 4x + 5)(5x^2 + 3x - 4)$

11. $(2n^2 + 3n - 6)(5n^2 - 2n - 8)$

Practice and Problem Solving

Extra Practice is on page R8.

Examples 1–2 Find each product.

12. $(3c - 5)(c + 3)$

13. $(g + 10)(2g - 5)$

14. $(6a + 5)(5a + 3)$

15. $(4x + 1)(6x + 3)$

16. $(5y - 4)(3y - 1)$

17. $(6d - 5)(4d - 7)$

18. $(3m + 5)(2m + 3)$

19. $(7n - 6)(7n - 6)$

20. $(12t - 5)(12t + 5)$

21. $(5r + 7)(5r - 7)$

22. $(8w + 4x)(5w - 6x)$

23. $(11z - 5y)(3z + 2y)$

Example 3

24. **GARDEN** A walkway surrounds a rectangular garden. The width of the garden is 8 feet, and the length is 6 feet. The width x of the walkway around the garden is the same on every side. Write an expression that represents the total area of the garden and walkway.

Example 4

Find each product.

25. $(2y - 11)(y^2 - 3y + 2)$

26. $(4a + 7)(9a^2 + 2a - 7)$

27. $(m^2 - 5m + 4)(m^2 + 7m - 3)$

28. $(x^2 + 5x - 1)(5x^2 - 6x + 1)$

29. $(3b^3 - 4b - 7)(2b^2 - b - 9)$

30. $(6z^2 - 5z - 2)(3z^3 - 2z - 4)$

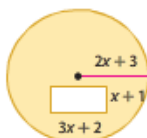
Simplify.

31. $(m + 2)[(m^2 + 3m - 6) + (m^2 - 2m + 4)]$

32. $[(t^2 + 3t - 8) - (t^2 - 2t + 6)](t - 4)$

CCSS STRUCTURE Find an expression to represent the area of each shaded region.

33.



34.

