

LESSON
8.3**Practice B**

For use with the lesson "Find Special Products of Polynomials"

Find the product of the square of the binomial.

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| 1. $(x - 9)^2$ | 2. $(m + 11)^2$ | 3. $(5s + 2)^2$ |
| 4. $(3m + 7)^2$ | 5. $(4p - 5)^2$ | 6. $(7a - 6)^2$ |
| 7. $(10z - 3)^2$ | 8. $(2x + y)^2$ | 9. $(3y - x)^2$ |

Find the product of the sum and difference.

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|--------------------------|------------------------|------------------------|
| 10. $(a - 9)(a + 9)$ | 11. $(z - 20)(z + 20)$ | 12. $(5r + 1)(5r - 1)$ |
| 13. $(6m + 10)(6m - 10)$ | 14. $(7p - 2)(7p + 2)$ | 15. $(9c - 1)(9c + 1)$ |
| 16. $(4x + 3)(4x - 3)$ | 17. $(4 - w)(4 + w)$ | 18. $(5 - 2y)(5 + 2y)$ |

Describe how you can use mental math to find the product.

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| 19. $15 \cdot 25$ | 20. $43 \cdot 57$ | 21. 18^2 |
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Perform the indicated operation using the functions $f(x) = 4x + 0.5$ and $g(x) = 4x - 0.5$.

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| 22. $f(x) \cdot g(x)$ | 23. $(f(x))^2$ | 24. $(g(x))^2$ |
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25. **Pea Plants** In pea plants, the gene S is for spherical seed shape, and the gene s is for wrinkled seed shape. Any gene combination with an S results in a spherical seed shape. Suppose two pea plants have the same gene combination Ss .

- Make a Punnett square that shows the possible gene combinations of an offspring pea plant and the resulting seed shape.
- Write a polynomial that models the possible gene combinations of an offspring pea plant.
- What percent of the possible gene combinations of the offspring results in a wrinkled seed shape?

26. **Basketball Statistics** You are on the basketball team and you want to figure out some statistics about foul shots. The area model shows the possible outcomes of two attempted foul shots.

- What percent of the two possible outcomes of two attempted foul shots results in you making at least one foul shot? *Explain* how you found your answer using the table.
- Show how you could use a polynomial to model the possible results of two attempted foul shots.

	Made	Missed
Made		
Missed		