

LESSON
8.1

Practice B

For use with the lesson "Add and Subtract Polynomials"

Write the polynomial so that the exponents decrease from left to right. Identify the degree and leading coefficient of the polynomial.

- 1. $4n^5$
- 2. $4x - 2x^2 + 3$
- 3. $6y^3 - 2y^2 + 4y^4 - 5$

Tell whether the expression is a polynomial. If it is a polynomial, find its degree and classify it by the number of its terms. Otherwise, tell why it is not a polynomial.

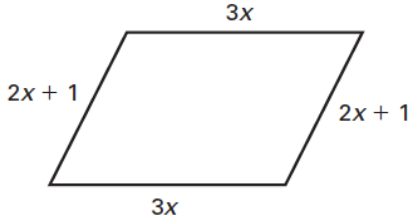
- 4. 10^x
- 5. $-6n^2 - n^3 + 4$
- 6. $w^{-3} + 5$

Find the sum or difference.

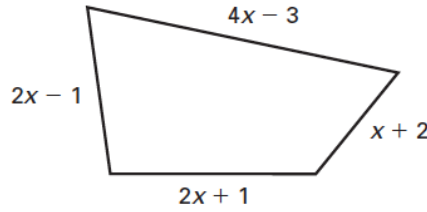
- 7. $(3z^2 + z - 4) + (2z^2 + 2z - 3)$
- 8. $(8c^2 - 4c + 1) + (-3c^2 + c + 5)$
- 9. $(2x^2 + 5x - 1) + (x^2 - 5x + 7)$
- 10. $(10b^2 - 3b + 2) - (4b^2 + 5b + 1)$
- 11. $(-4m^2 + 3m - 1) - (m + 2)$
- 12. $(3m + 4) - (2m^2 - 6m + 5)$

Write a polynomial that represents the perimeter of the figure.

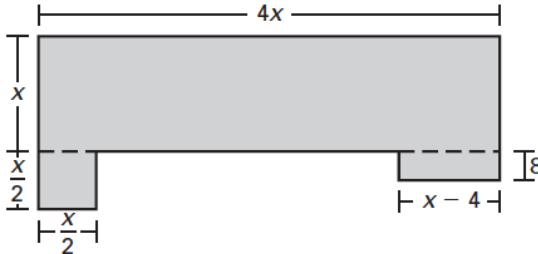
13.



14.



15. **Floor Plan** The first floor of a home has the floor plan shown. Find the area of the first floor.



16. **Profit** For 1995 through 2005, the revenue R (in dollars) and the cost C (in dollars) of producing a product can be modeled by

$$R = \frac{1}{4}t^2 + \frac{21}{4}t + 400 \quad \text{and} \quad C = \frac{1}{12}t^2 + \frac{13}{4}t + 200$$

where t is the number of years since 1995. Write an equation for the profit earned from 1995 to 2005. (*Hint: Profit = Revenue - Cost*)