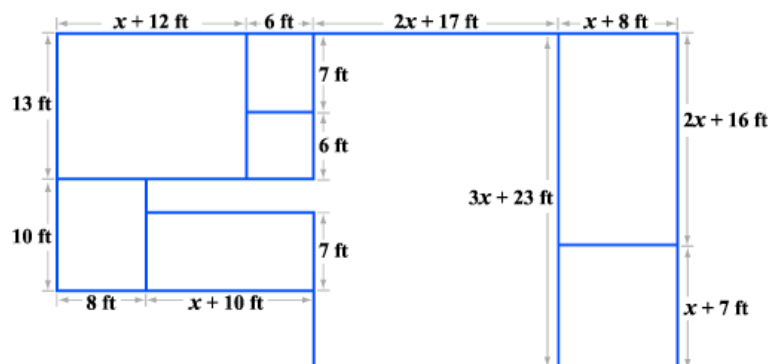


Operations on polynomials

Student Activity Sheet 2; use with *Exploring “Multiplying polynomials”*

1. What does x represent in the Bradleys' house plan?



2. What are **terms** of a polynomial?
3. Complete the following table to describe different polynomials.

Type	Definition	Example
monomial		$-5mn^2$
		$5xy - 7$
	a polynomial with three terms	

4. What is the degree of a monomial?
5. What is the degree of $3x^2y^4$?
6. What is the degree of a polynomial?

Operations on polynomials

Student Activity Sheet 2; use with *Exploring* “Multiplying polynomials”

7. What is the degree of $7x^4 + 5x - 3$?

8. Fill in the table with the correct attributes for each polynomial.

4	3
2	1
binomial	trinomial
monomial	

Polynomial	Special name	Degree
$3x^2 - 75$		
$x^3 + 3x^2 + x$		
$3x^2yz$		
$6a^2 + 2ab - 2b^2$		
$4x - 3$		

9. Use the distributive property to simplify $(20 + 3) \cdot (10 + 7)$.

10. Use the box method to simplify $(20 + 3) \cdot (10 + 7)$.

Operations on polynomials

Student Activity Sheet 2; use with *Exploring* “Multiplying polynomials”

11. Use the distributive property to simplify $(3x - 2)(2x + 2)$.

12. Use the box method to simplify $(3x - 2)(2x + 2)$.

13. Use algebra tiles to model and simplify $(3x - 2)(2x + 2)$.

Operations on polynomials

Student Activity Sheet 2; use with *Exploring* “Multiplying polynomials”

14.

a. Use algebra tiles to model and simplify $(2x - 3)(x + 1)$.

b. Multiply $(2x - 3)(x + 1)$ using the box model.

c. Multiply $(2x - 3)(x + 1)$ using the distributive property.

d. Compare the processes and results of the algebra tile model, the box model, and the distributive property.

Operations on polynomials

Student Activity Sheet 2; use with *Exploring* “Multiplying polynomials”

15. Use any method to find the area of the Bradleys’ modified largest room,
 $(3x + 23)$ ft by $(2x + 17)$ ft.
16. Use the box method to find the volume of a rectangular prism with a base of area
 $B = (x^2 + 5x + 4)$ in.² and a height of $h = (x + 3)$ in.

Operations on polynomials

Student Activity Sheet 2; use with *Exploring* “Multiplying polynomials”

17. **REINFORCE** Multiply $2x^2(3x^2 - 4x + 2)$.

18. **REINFORCE** Multiply $(x + 2)(x - 2)$.

19. **REINFORCE** Multiply $(2x + 3)(x - 6)$.