

Name: \_\_\_\_\_

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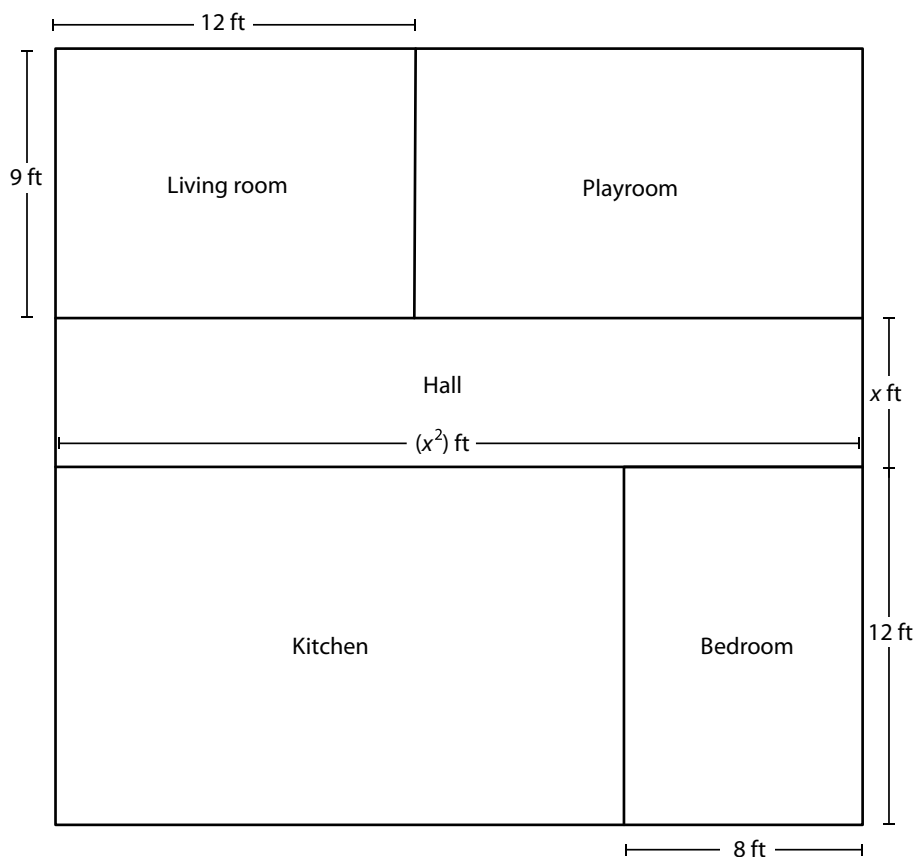
## UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES AND EXPRESSIONS

### Lesson 3: Interpreting Formulas and Expressions

#### Lesson 1.3.3: Multiplying Polynomials

##### Warm-Up 1.3.3

A carpet installer charges different prices based on the size of the room where the carpet is being installed. Iskra wants to have the same carpet installed in her bedroom, living room, and hall. To determine the cost, she first needs to determine the area of each rectangular room. The area of a rectangle is the product of the rectangle's length,  $l$ , and width,  $w$ :  $A = lw$ . Find the area in simplest form for each of the three rooms Iskra wants to have carpeted.



1. The bedroom has a length of 12 feet and a width of 8 feet.
2. The living room has a length of 12 feet and a width of 9 feet.
3. The hall has a length of  $x^2$  feet and a width of  $x$  feet.