

1.1 Translating English into the Language of Algebra

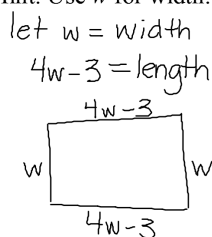
- Define: unknowns using a variable
let "x" =
- If more than one item: use the same variable to identify all items
- ★ Look for a sentence that describes a relationship between the items.

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1. Bob has n pets. Julius has three ^{more than} ^{2 times} as many pets as Bob. Express the number of pets Julius has in terms of n .
let n = Bob's pets
 $2n + 3$ = Julius' pets
2. Sue is three times as old as Allen and Carol is three years younger than Allen. If Allen is x years old:
 - a. Represent the age of Sue
let x = Allen's age
 $3x$ = Sue's age
 - b. Represent the age of Carol
 $x - 3$ = Carol's age

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3. The length of a room is three feet less than four times its width. Draw a diagram that includes the expressions for length and width. Hint: Use w for width.



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4. Betsy has 327 bottles saved for recycling. If she adds a dozen bottles a week, represent the total number of bottles she has after x weeks.

let x = # of weeks

$$327 + 12x$$

5. A liter of Gatorade cost 50 cents ^{more than} a liter of water. Represent the cost of 7 liters of Gatorade and 5 liters of water.

let x = \$ liter water
 $x + 50$ = \$ liter Gatorade
 $7(x + 50) + 5x$

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HOMEWORK

Worksheet HW 1.1

More Translating

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