

## Writing Equations

### Examples

Just as phrases can be represented as expressions, sentences can be represented as equations.

**Phrase:** two more than three times a number

**Expression:**  $2 + 3n$

**Sentence:** Two more than three times a number is 11.

**Equation:**  $2 + 3n = 11$

**Words** Three times the number of Wyatt's cards plus 17 equals the number of Clint's cards.

**Symbols** Let  $w$  = the number of Wyatt's cards.

**Equation**  $3w + 17 = 95$

### Exercises

Translate each sentence into an equation. Then, solve the equation you wrote. Remember to define your variables!

1. Nine more than half of a number is 21.
2. Six fewer than  $\frac{1}{3}$  of a number is 27.
3. Eleven more than three times a number is 101.
4. The quotient of a number and three tenths decreased by 2 is 6.
5. The \$22 Mara spent at a museum gift shop was \$4 more than twice the admission to the museum.
6. A hamburger costs \$7 which is \$2 more than one-third the cost of a pizza.
7. Angie is 11, which is 3 years younger than 4 times her sister's age.

