

Understanding function Notation

Scenario: Sally has \$30 and receives \$20 a week in allowance money. Create a function that relates the total amount of money she has to the number of weeks she receives an allowance.

$$f(x) = 30 + 20x$$

total amount
of money
(dependent
quantity)

of weeks
(independent
quantity)

$$f(5)$$

x = 5 weeks

$$f(x) = 30 + 20x$$

$$f(5) = 30 + 20(5)$$

$$\boxed{f(5) = 130}$$

At 5 weeks, she will have
\$130.

$$f(x) = 250$$

solve for x

$$f(x) = 30 + 20x$$

$$250 = 30 + 20x$$

$$\begin{array}{r} -30 \\ -30 \end{array}$$

$$\frac{220}{20} = \frac{20x}{20}$$

$$\boxed{x = 11} \text{ so } f(11) = 250$$

At 11 weeks, she will have
\$250.

she has
\$250