

Evaluating Expressions and Equations

Explains the difference between an expression and an equation

An equation has an equal sign to show that the numbers and expressions on both sides are equal.

$2 \times 4 = x - 2$ is an equation

Evaluates an expression when given the value of the variable

To determine the value of the expression $3k + 2$ when $k = 5$, I replace the k with 5.

$$\begin{aligned}3k + 2 &= 3(5) + 2 \\&= 15 + 2 \\&= 17\end{aligned}$$

Uses expressions to represent real-life situations and solve problems

Every week, Mac walks 5 km. In n weeks, they will walk $5n$ kilometres. There are 52 weeks in a year.

$$\begin{aligned}\text{When } n &= 52, \\5n &= 5(52) \\&= 260\end{aligned}$$

In 1 year, they will walk 260 km.

Uses equations to represent real-life situations and solve problems using guess and check or other informal solution methods

How many weeks will it take Mac to walk 150 km?

I need to find a number that makes $5n = 150$ true. I know $5 \times 10 = 50$ and there are three 50s in 150. So, it will take 3×10 , or 30 weeks.

Observations/Documentation

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