

Rearranging Formulas

9th Grade

Solving for a letter when everything else is letters too.

Rearranging a formula uses exactly the same inverse operations as solving an equation. The other letters simply come along for the ride.

$$A = lw \rightarrow l = A/w$$

$A = lw$, solve for l

Divide both sides by w .

$l = A/w$

$P = 2l + 2w$, solve for w

Subtract $2l$, then divide by 2 .

$w = (P - 2l)/2$

$y = mx + b$, solve for m

Subtract b , then divide by x .

$m = (y - b)/x$

$C = 2\pi r$, solve for r

π is just a number.

$r = C/(2\pi)$

Isolate the letter you want. Everything else stays exactly where the algebra puts it.