Investment *The formula for the future value A of a simple interest investment is $A = P + Prt$, where P is the original investment, r is the annual interest rate, and t is the time in years. Solve this formula for P.* [1]

To "solve" for a specific variable means that we want to algebraically manipulate the equation until that specific variable is on one side of the equal sign and everything else is on the other.

In this case, we're asked to solve for P so our job is to isolate P on one side of the equal sign. There are two terms that contain P but, luckily, they are already isolated on one side of the equal sign.

We'll start by factoring out P...

$$A = P + Prt$$
$$A = P(1 + rt)$$

Then divide each side by $(1 + rt)$ to complete solving for P.

$$\frac{A}{(1+rt)} = \frac{P(1+rt)}{(1+rt)}$$
$$\frac{A}{(1+rt)} = \frac{P\cancel{(1+rt)}}{\cancel{(1+rt)}}$$
$$\frac{A}{(1+rt)} = P$$

P is now isolated on the right but we'll turn the equation around so it will read in a more familiar way:

$$P = \frac{A}{(1+rt)}$$

[1] Harshbarger/Yocco, *College Algebra In Context, 5e*, p. 104, #80.