

DeWayne has \$1300 invested in two simple interest accounts (3% and 6%). If his annual interest income is \$63, how much does he have invested at each rate?

$$(\text{Rate}) \cdot (\text{Amount invested}) = \text{Interest}$$

Remember that 3% as a decimal is .03, not .3 (30% would be .3).

We know there are two numbers that add up to equal \$1300, but we don't know what either one of them is. Let's make one of them be x and see what happens.

$$\text{Amount at 3\%} = x$$

$$\text{Amount at 6\%} = 1300 - x$$

Now we can make an equation.

$$(\text{Rate}) \cdot (\text{Amount invested at 3\%}) + (\text{Rate}) \cdot (\text{Amount invested at 6\%}) = \text{Total interest from both accounts}$$

$$(.03)(x) + (.06)(1300 - x) = 63$$

Solve for x .

$$.03x + 78 - .06x = 63$$

$$-.03x = -15 \quad (\text{Now divide both sides by } -.03)$$

$$x = \mathbf{500}$$

$$\text{and that means } 1300 - x = \mathbf{800}$$

We've got the answers!

\$500 at 3% interest and \$800 at 6% interest