Simple Interest Worksheet

1. A $1,000 savings bond earns simple interest at the rate of 3% each year. The interest is paid at the end of every month. How much interest will the bond have earned after 3 months?

2. Mrs. Williams wants to know how long it will take an investment of $450 to earn $200 in interest if the yearly interest rate is 6.5%, paid at the end of each year.

3. A $1,500 loan has an annual interest rate of $4\frac{1}{4}\%$ on the amount borrowed. How much time has elapsed if the interest is now $127.50?

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1. A $1,000 savings bond earns simple interest at the rate of 3% each year. The interest is paid at the end of every month. How much interest will the bond have earned after 3 months?

Step 1: Convert 3 months to a year.

12 months = 1 year. So, divide both sides by 4 to get 3 months =
$\frac{1}{4}$ *year.*

Step 2: Use the interest formula to find the answer.

$$I = Prt$$
$$I = (\$1000)(0.03)(0.25)$$
$$I = \$7.50$$

The interest earned after 3 months is $7.50.

2. Mrs. Williams wants to know how long it will take an investment of $450 to earn $200 in interest if the yearly interest rate is 6.5%, paid at the end of each year.

$$I = Prt$$
$$\$200 = (\$450)(0.065)t$$
$$\$200 = \$29.25t$$

$$\$200\left(\frac{1}{\$29.25}\right) = \left(\frac{1}{\$29.25}\right)\$29.25t$$
$$6.8376 = t$$

Six years is not enough time to earn $200. At the end of seven years, the interest will be over $200. It will take seven years since the interest is paid at the end of each year.

3. A $1,500 loan has an annual interest rate of $4\frac{1}{4}\%$ on the amount borrowed. How much time has elapsed if the interest is now $127.50?

Let t be time in years.

$$127.50 = (1,500)(0.0425)t$$
$$127.50 = 63.75t$$

$$(127.50)\left(\frac{1}{63.75}\right) = \left(\frac{1}{63.75}\right)(63.75)t$$
$$2 = t$$

Two years have elapsed.

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