

MARCH 12, 2015 ^{1ST} ^{2ND}

STARTER



An apple farmer goes to the nursery to buy 10 apple trees. The owner says that if the farmer can plant the 10 trees in 5 rows of 4, he can have the trees for free. How does the farmer do it?

3/12 - Simple Interest

What IS interest?
sum charged for borrowing \$
sum earned for saving \$ in a bank



$$I = prt$$

Interest

principle — \$

rate — decimal

time — years

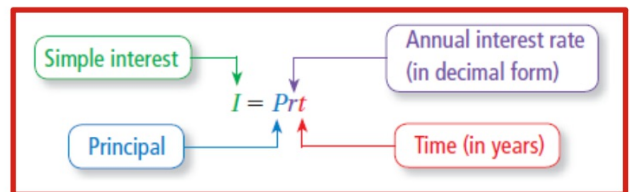
\$100 at 5% for 6 years

$$I = prt$$
$$= (100)(0.05)(6)$$
$$= \$30 \text{ interest earned}$$

$$100 \times 0.05 \times 6 = 30$$

Ending Balance

$$\begin{array}{r} \$100 \\ +30 \\ \hline \$130 \end{array}$$



\$4,800 at 14% for 4 years

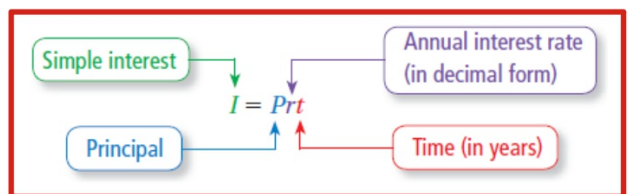
$$I = prt$$
$$= (4800)(0.14)(4)$$
$$= \$2688 \text{ interest earned}$$

$$4800 \times 0.14 \times 4 = 2688$$

Ending Balance:

\$4,800
+2688

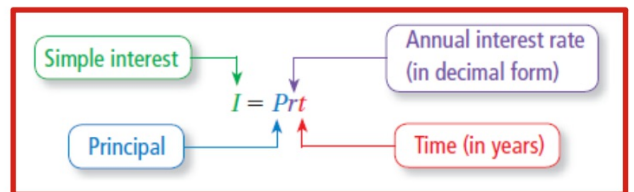
\$7,488



\$175 at 7% for 8 years

$$\begin{aligned} I &= prt \\ &= (175)(.07)(8) \\ &= 98 \end{aligned}$$

$$\begin{array}{r} 175 + 98 = 175 \\ \Rightarrow \$273 \quad + 98 \\ \boxed{\$273} \end{array}$$



$$175 \times 0.07 \times 8 = 98$$

HOMework

Melon WS5

DUE Monday