

# MARCH 12, 2015 <sup>1ST</sup> <sup>2ND</sup>

## 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?

\$ earned or paid on a total amount.

i.e. \$ in a bank earns \$, \$ you owe on a car is paid.



$$I = prt$$

Interest

principle \$

rate — decimal

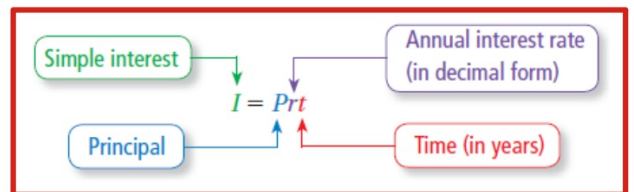
time — years

\$100 at 5% for 6 years

$$\begin{aligned} I &= prt \\ &= (100)(.05)(6) \\ &= \$30 \end{aligned}$$

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

$$\begin{aligned} &\text{Original + interest} \\ &= \$130 \end{aligned}$$

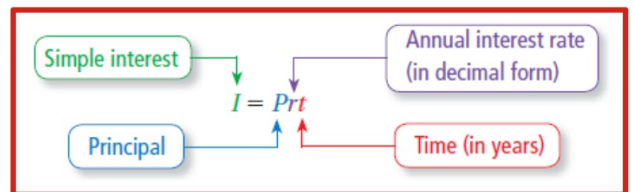


\$4,800 at 14% for 4 years

$$\begin{aligned} I &= prt \\ &= (4800)(.14)(4) \\ &= \$2688 \end{aligned}$$

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

$$\begin{array}{r} 4800 \\ + 2688 \\ \hline \$7488 \end{array}$$



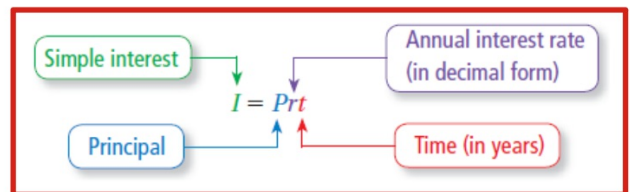
\$175 at 7% for 8 years

$$\begin{aligned} I &= prt \\ &= (175)(0.07)(8) \\ &= \$98 \text{ interest earned} \end{aligned}$$

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

Total amount:

$$\begin{array}{r} 175 \\ + 98 \\ \hline \$ 273 \end{array}$$



\$7,400 at 3% for 2 years

$$I = prt$$

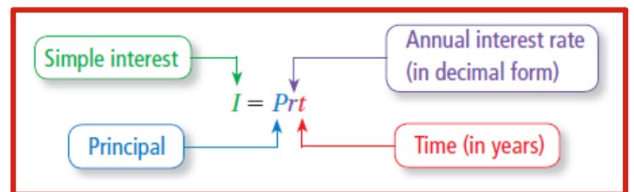
$$= 7400 (0.03) 2$$

$$= 444$$

$$7400 \times 0.03 \times 2 = 444$$

Total:

$$\begin{array}{r} 7400 \\ + 444 \\ \hline \$7844 \end{array}$$



**HOMework**

*Melon WS5*

**DUE** *Monday*