

UNIT 7

FINANCIAL APPLICATIONS

SIMPLE INTEREST

Change to a decimal

$$\frac{5}{6} \leftarrow \div \quad 5 \div 6 = 0.8\bar{3}$$

$$\frac{3}{7} = 0.428 \quad = 0.43$$

$$10\% \Rightarrow \frac{10}{100} = 10 \div 100 = 0.1$$

$$1\% = 0.01$$

$$0.1\% = 0.001$$

Change to a percent

$$5.7 \times 100 = 570\%$$

$$3.1 = 310\%$$

$$0.5 = 50\%$$

$$0.07 = 7\%$$

Express as fractions of a year

3 months $\frac{3}{12}$ ← # of months in a year

4 weeks $\frac{4}{52}$ ← # of weeks in a year

155 days $\frac{155}{365}$ ← # of days in a year

Principle - amount of money borrowed / lent / invested *(starting amount)*

Interest - money paid by borrower OR to an investor for the use of money

Loan → *borrow money*
- you pay interest on it

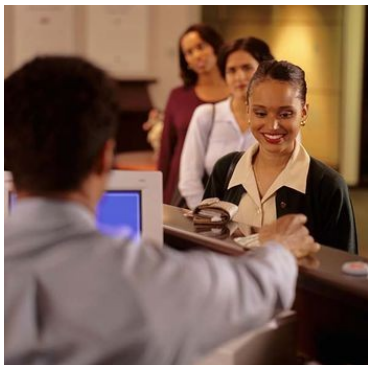
Investment - you earn interest on it

Banks *pay you* for the use of your money.

When you deposit \$ in a bank account, the bank re-invests it to make a profit for themselves.

They pay you for part of this profit as your

interest.



Simple interest - \$500 invested at 12% annually ↖ year

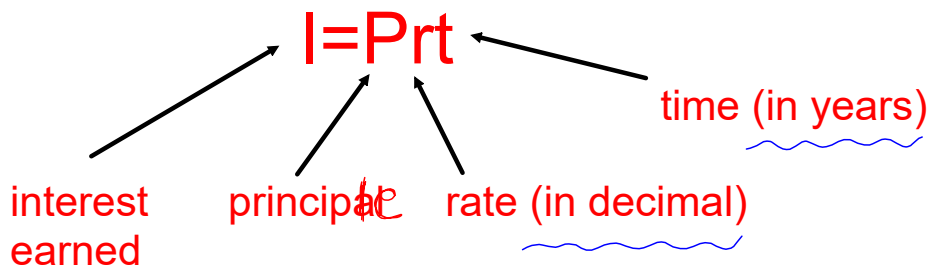
How much money will he have at the end of the 7 years?

Year	Principal	Interest Earned	Amount at the End of the Year
1	500	$500(0.12)=60$	560
2	500	60	620
3	500	60	680
4	500	60	740
5	500	60	800
6	500	60	860
7	500	60	920

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Simple interest

- interest is earned on the original principle



Simple Interest

Joe wants to invest \$500 for 7 years at 12% interest.
How much money will he have at the end?

$$\begin{aligned} I &= Prt \\ &= 500 (0.12)(7) \\ &= 420 \end{aligned}$$

$$\begin{aligned} \text{Total} &= \text{principle} + \text{interest} \\ &= 500 + 420 \\ &= 920 \end{aligned}$$

∴ he will have
\$920.00

Seatwork

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