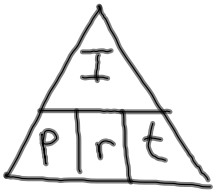
MAY 4/10

SIMPLE INTEREST

$$I = Prt$$

I = INTEREST
P = PRINCIPAL
r = RATE (DECIMAL)
t = TIME (YEARS)



Ex. TORI INVESTED $2400 AT 4% PER ANNUM. CALCULATE THE INTEREST AFTER 2 YEARS.

$I = Prt$
$I = 2400 \times .04 \times 2$
$I = \$192.00$

Ex. SAME AS ABOVE, BUT FOR 8 MONTHS

$I = Prt$
$I = 2400 \times .04 \times \frac{8}{12}$
$I = \$64.00$

Ex. HIBAH LENT BRAD $600 FOR 4 MONTHS. BRAD PAID HER BACK $607. WHAT IS THE RATE?

$$r = \frac{I}{Pt} = \frac{7}{600 \times \frac{4}{12}} = 0.035$$

$r = 3.5\%$

May 4-9:17 AM

Compound Interest

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

A = Interest + Principal

P = Principal

r = Rate (decimal)

t = Time (years)

n = Number of compounds per year

Ex. $1000 is invested at 12% for 3 years. Find the amount if compounded

a) Annually

b) Daily

a) $A = P\left(1 + \frac{r}{n}\right)^{nt}$

$A = 1000\left(1 + \frac{.12}{1}\right)^{1 \cdot 3}$ (4) (2) (1) (3)

$A = \$1404.93$

b) $A = P\left(1 + \frac{r}{n}\right)^{nt}$

$A = 1000\left(1 + \frac{.12}{365}\right)^{365 \cdot 3}$ ← 1095

$A = \$1433.24$

Ex 42 Q# 1

Ex 43 Q# 1-5, 14

Ex 44 Q# 1-8, 14