Simple Interest







The formulas for calculating Simple Interest and Future Value are:

Examples:



Answer

 I = P x r x t

 I = 32500 x 0.0145 x $\frac{6}{\begin{array}{c}12\\\end{array}}$ \*\*\*\* Note: r must be a decimal and t must be in years\*\*\*\*

 I = 235.63

FV = 32500 + 235.63

 =32 735.63

The future value of Ryan’s investment is $32 735.63.

Example 2: Cody borrows $300 from Chris to get his car fixed. He plans on paying Chris back on payday, which is 10 days from now. Chris charges Cody an interest rate of 35%/a on the loan.

1. How much interest will Cody pay?
2. What is the total amount Cody will pay Chris to clear the loan?

Answer:

 (a) I = P x r x t

 I = 300 x 0.35 x $\frac{10}{365}$

 I = $2.88

(b) A = 300 + 2.88

 A = 302.88

Cody will pay Chris $2.88 in interest. To repay the loan he must pay $302.88





Ex 3:

Answer:

P = 3000

r = 10% = 0.10

I = 900

t= ?

Rearranging the formula for t gives

 t = $\frac{I}{Px r}$

 t = $\frac{900}{\begin{array}{c}3000x0.10\\\end{array}}$

 t = $\frac{900}{300}$

 t = 3

Janet had the loan for 3 years.

Ex 4:



Answer:

I = 216

r= 6% = 0.06

t = 3

P = ?

 P = $\frac{I}{r x t}$

 P = $\frac{216}{0,06 x 3}$

 P = $\frac{216}{\begin{array}{c}0.18\\\end{array}}$

 P = 1200

Tom’s loan was for $1200.

Extra Practice Questions from the book: p. 232-233 #1 to 8