

Applications of linear equations:

Example 2:

John Li invests 5400 at 2.5% simple interest.

1) How much interest does he earn at the end of the 5 years?

2) How much money does he have at the end of 5 years?

3) We use the simple interest formula: $I = Prt$

I = interest earned

P = initial amount invested

r = rate of interest expressed as a decimal $2.5\% = 2.5 \cdot \frac{1}{100} = 0.025$

t = period of investment

4) We plug the values given into the formula.

$$I = (5400)(0.025)(5) = \$675$$

At the end of 5 years, John has earned 675 dollars in interest.

5) This means at the end of the 5 year period, he'll have $5400 + 675 = \$6075$ in all.