

## Examples on Applications of Linear Equations in One Variable

(Number Problem) Two integers have a sum of 27 and the second integer is 5 less than three times the first. What are the two integers?

(Geometry Problem) If the perimeter of a rectangle is 278 meters and the length is 1 meter longer than twice the width, what are the length and the width?

(Uniform Motion Problem) While riding his bike home from Camosun last week, Darrell got a flat tire after 20 minutes and had to walk the rest of the way, which took him another half an hour. His walking speed is one-third of his cycling speed. If his total trip was 7.5 km, what is Darrell's speed while cycling?

(Investment Problem) Dorothy invested some money at 3% simple interest and some money at 7% simple interest. The amount invested at the higher rate was \$3000 more than the amount invested at the lower rate. If the total interest on the investment for 1 year was \$810, how much did she invest at each rate?

(Mixture Problem) Tom has just bought some milk that is 2% fat. He would like to add a certain amount of milk that is 10% fat in order to get a total of eight liters of milk that is 4% fat. How much of the 10% fat milk must he add?

(Commission Problem) Roy is selling his car through a broker. Roy wants to get \$3600 for himself, but the broker gets a commission of 10% of the selling price. What should the selling price be?