Lesson 3

Calculating Currency Exchange

1. Dalton wants to purchase a handheld GPS system for hiking. He found the item he needs on an American website, where it is listed for $194.99 USD. He then found the exact same item on a Canadian website, where it was listed for $249.99 CAD. Do these two items cost the same?

Step 1: *Set up the ratios. Change the American price to Canadian funds for a fair comparison.*

$$\frac{\$1\ CAD}{\$0.91\ USD} = \frac{x\ CAD}{\$194.99\ USD}$$

Step 2: *Solve for the unknown value.*

Multiply both sides by $194.99 USD.

$$\frac{\$1\ CAD}{\$0.91\ USD} = \frac{x\ CAD}{\$194.99\ USD}$$

$$\left(\$194.99\ \cancel{USD}\right) \times \frac{\$1\ CAD}{\$0.91\ \cancel{USD}} = \frac{x\ CAD}{\cancel{\$194.99\ USD}} \times \cancel{\left(\$194.99\ USD\right)}$$

$$\frac{\$194.99 \times \$1\ CAD}{0.91} = x\ CAD$$

$$\$214.27 = x$$

The price of $194.99 USD is equal to $214.27 CAD. It would be better to purchase the GPS system from the American website at this exchange rate.

2. Kurt wants to buy his mom some perfume from Europe. He found her favourite brand for €27.95. What is the price, in Canadian funds?

Step 1: *Set up the ratios. Change the European price to Canadian funds.*

$$\frac{\$1\ CAD}{€0.66\ EUR} = \frac{x\ CAD}{€27.95\ EUR}$$

Step 2: *Solve for the unknown value.*
Multiply both sides by €27.95.

$$\frac{\$1\ CAD}{€0.66\ EUR} = \frac{x\ CAD}{€27.95\ EUR}$$

$$\left(€27.95\ \cancel{EUR}\right) \times \frac{\$1\ CAD}{€0.66\ \cancel{EUR}} = \frac{x\ CAD}{\cancel{€27.95}\ \cancel{EUR}} \times \left(\cancel{€27.95}\ \cancel{EUR}\right)$$

$$\frac{€27.95 \times \$1\ CAD}{€0.66} = x\ CAD$$

$$\$42.35 = x$$

The perfume will cost Kurt $42.35 CAD.