

6.RP Currency Exchange

Alignments to Content Standards: 6.RP.A.3

Task

Joe was planning a business trip to Canada, so he went to the bank to exchange \$200 U.S. dollars for Canadian (CDN) dollars (at a rate of \$1.02 CDN per \$1 US). On the way home from the bank, Joe's boss called to say that the destination of the trip had changed to Mexico City. Joe went back to the bank to exchange his Canadian dollars for Mexican pesos (at a rate of 10.8 pesos per \$1 CDN). How many Mexican pesos did Joe get?

IM Commentary

Students may find the CDN abbreviation for Canada confusing. Teachers may need to explain the fact that money in Canada is also called dollars, so to distinguish them, we call them Canadian dollars.

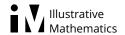
Solutions

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Solution: Using the Unit Rate

Since there are 1.02 Canadian dollars for every 1 U.S. dollar, we can multiply the number of U.S. dollars by 1.02 to find out how many Canadian dollars he can buy.

 $200 \times 1.02 = 204$



So Joe will get \$204 CDN for his \$200 U.S.

Since there are 10.8 pesos for every 1 CDN dollar, we can multiply the number of CDN dollars by 10.8 to find out how many pesos he can buy.

$$204 \times 10.8 = 2203.2$$

So Joe will get 2203.2 pesos for his \$204 CDN.

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Solution: Dimensional Analysis

We can do the same thing as in the first solution, but keep the units in the equation:

$$200 \text{ US} \times \frac{1.02 \text{ CDN}}{1 \text{ US}} = 200 \times 1.02 \text{ CDN} = 204 \text{ CDN}$$

and

$$204 \text{ CDN} \times \frac{10.8 \text{ pesos}}{1 \text{ CDN}} = 204 \times 10.8 \text{ pesos} = 2203.2 \text{ pesos}.$$

Joe will get 2203.2 pesos for his \$200 U.S.



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