

CURRENCY CONVERSIONS



The price of any one country's currency in terms of another country's currency is called a foreign currency exchange rate. Since an exchange rate is essentially a price, it can be thought of in the same way we would any price. Take a typical grocery store price, say lemons are selling at the price of 3 for a dollar, or 33 cents each. This is shown in the table below (reading left to right): 1 U.S. Dollar = 3 Lemons. According to the table, 1 U.S. dollar also buys 2 apples, 1 head of lettuce, half a bunch of spinach, 0.25 melon, 12 bananas, and 100 grapes, etc.

Grocery Store Prices		Lemons	Apples	Lettuce	Spinach	Melon	Bananas	Grapes	
1	U.S. (Dollar)	=	3	2	1	0.5	0.25	12	100

THIS
WILL BUY YOU THIS

But instead of being prices for goods, exchange rates are the prices of foreign currencies in terms of other currencies. For instance, one US dollar will buy 1.0097 Swiss francs or 0.6602 British pounds. And just like the prices in the store, exchange rates are constantly changing based on supply and demand.

CHECKPOINT

What types of events might affect the price of lemons in the store?

What types of events might affect the "price" of the Canadian dollar?

EXCHANGE RATE TABLES

There are several different types of exchange rate tables. The **cross rate table** is probably the most useful. It is used to convert directly from one currency to another. To read the table, just find the currency that you want to convert FROM on the left side of the table. Then just read left to right – the first row shows that 1 U.S. Dollar is worth 1 U.S. Dollar (obviously), 118.5430 Japanese Yen, 0.8408 Euros, 1.1831 Canadian Dollars etc. For example, one U.S. dollar would be worth 118.5430 Japanese yen. If you wanted to exchange \$100 U.S. dollars for a trip to Japan, you would receive 11854.30 Japanese yen.

Key Currency Cross Rates		Dollar \$	Yen ¥	Euro €	CndDlr	Pound £	Peso	SFranc	
1	U.S. (Dollar)	=	1	118.5430	0.8408	1.1831	0.6602	14.8810	1.0097
1	Japan (Yen)	=	0.0084	1	0.0071	0.0100	0.0056	0.1256	0.0085
1	European Union (Euro)	=	1.1894	140.9850	1	1.4070	0.7847	17.6991	1.2011
1	Canada (CndDlr)	=	0.8452	100.1580	0.7107	1	0.5578	12.5786	0.8538
1	U.K. (Pound)	=	1.5147	179.5850	1.2743	1.7928	1	22.5734	1.5305
1	Mexico (Peso)	=	0.0672	7.9633	0.0565	0.0795	0.0443	1	0.0678
1	Switzerland (SFranc)	=	0.9904	117.4050	0.8326	1.1713	0.6534	14.7412	1

FROM
TO

CHECKPOINT

How are exchange rates in the table above similar to prices of lemons, apples, and grapes in the store?

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TYPES OF QUOTATIONS

The secret to writing any kind of foreign currency quotations is to remember the currency you're converting to comes first (and is the number you find in the table). The currency you're converting from comes second (and is always 1). **TO COMES FIRST / ONE COMES SECOND.**

A **direct quotation** is when the U.S. dollar is written first (\$__ / €, or TO dollars FROM euros).
From the table: 1.1894 U.S. Dollars / 1 Euro or \$1.1894 / €.

An **indirect quotation** is when the U.S. dollar is written second (€__ / \$, or TO euros FROM dollars).
From the table: 0.8408 Euros / 1 U.S. Dollar or € 0.8408 / \$.

CHECKPOINT

Explain the difference between direct and indirect quotations.

Would someone traveling to the U.S. from another country be more likely to want a direct or indirect quote?



Finally, a **cross rate quotation** is the exchange rate between two currencies directly, without necessarily including the dollar (€ / ¥, or TO euros FROM yen). From the table: € 0.0071 / ¥.

The important thing to remember FOR ANY KIND OF QUOTATION is that the currency you are converting TO comes first and the currency you are converting FROM comes second.

Questions for Discussion

Use the Currency Cross Rate Table on the first page to answer the questions that follow. You may work in pairs on this. PLEASE ROUND ALL ANSWERS TO 2 DECIMALS (FOR EXAMPLE: 35.05 YEN).

1. Identify each of the following quotations as either: Direct (**D**), Indirect (**I**), or Cross Rate (**CR**):

_____ \$ 1.5147 / £

_____ 1.1831 CndDir / \$

_____ £ 0.0056 / ¥

_____ 0.0071 Euro / Yen

_____ 117.4050 Yen / Sfrancs

_____ 0.0084 Dollars / Yen

2. According to the table on the first page, the direct quotation between the US dollar (\$) and European euro (€) was \$1.1894 / €. What does this mean (write it out in words)?

3. Now rewrite the direct quotation in #2 above as an indirect quotation (you can either take the inverse ($1/x$) of the direct quotation OR look at the cross rate table for the exchange rate TO Euros FROM Dollars).

Indirect quotation: € _____ / \$

Use this rate to figure out how many euros you would receive if you wanted to exchange \$100. Hint: It's less than 100 euros.

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4. Let's say you are returning from a trip to Europe and have 100 euros left over, how many dollars could you exchange them for? Hint: It's more than \$100.

a) Write the appropriate cross rate quotation: $\frac{\text{_____}}{\text{TO}} / \frac{\text{_____}}{\text{FROM}}$

b) Multiply the number in the word problem by the cross rate above: _____ x _____

c) Write the solution (with correct currency): _____

5. If you had 10000 Japanese yen and wanted to convert them to Mexican pesos, how many pesos would you get (show your work)?

a) Write the appropriate cross rate quotation: $\frac{\text{_____}}{\text{TO}} / \frac{\text{_____}}{\text{FROM}}$

b) Multiply the number in the word problem by the cross rate above: _____ x _____

c) Write the solution (with correct currency): _____

6. As it turns out, you didn't spend very many of the pesos in Mexico and now want to convert what's left into US dollars. Conveniently, you have exactly 1000 Mexican pesos left over. How many U.S. dollars will you get for them (show your work)?

a) Write the appropriate cross rate quotation: $\frac{\text{_____}}{\text{TO}} / \frac{\text{_____}}{\text{FROM}}$

b) Multiply the number in the word problem by the cross rate above: _____ x _____

c) Write the solution (with correct currency): _____

7. The world of international business keeps you moving all the time. Now, you have to fly to Switzerland for a conference. How many Swiss francs will you get when you exchange \$1000 U.S. dollars (show your work)?

a) Write the appropriate cross rate quotation: $\frac{\text{_____}}{\text{TO}} / \frac{\text{_____}}{\text{FROM}}$

b) Multiply the number in the word problem by the cross rate above: _____ x _____

c) Write the solution (with correct currency): _____

8. You have 500 Swiss francs left over from the conference. Your boss calls and tells you to fly to the United Kingdom (England) to make a sales pitch. How many U.K. Pounds do you get in the exchange (show your work)?

a) Write the appropriate cross rate quotation: $\frac{\text{_____}}{\text{TO}} / \frac{\text{_____}}{\text{FROM}}$

b) Multiply the number in the word problem by the cross rate above: _____ x _____

c) Write the solution (with correct currency): _____