

## The Currency Exchange

Money is exchanged from one currency into another in a certain ratio, called the exchange rate. The exchange rate of US dollars to British pounds is \$1.6:£1. A British pound buys more than 1 US dollar – I suppose that means English people are better than Americans.

To change any amount of dollars into pounds or vice versa, construct a table. To change \$60 into pounds, construct the table below.

\$	£
1.6	1
60	x

The columns or rows are in a certain ratio, so  $\frac{60}{1.6} = \frac{x}{1}$  or  $\frac{1}{1.6} = \frac{x}{60}$  hence  $x = 60 \times \frac{1}{1.6} = 37.5$ , so \$60 buys £37.50.

To change £120 into dollars construct the table below.

\$	£
1.6	1
x	120

The columns or rows are in a certain ratio, so  $\frac{x}{1.6} = \frac{120}{1}$  or  $\frac{1}{1.6} = \frac{120}{x}$  hence  $x = 1.6 \times 120 = 192$  so £120 buys \$192.

Suppose there are three currencies – pounds £, dollars \$ and Roubles R. £1 buys \$1.6 or R56. I guess that means British people are better than Americans but much better than Russians.

I want to change \$140 into Roubles.

The £:\$:R ratio is 1:1.6:56. The above table becomes

\$	R
1.6	56

140	x
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The columns or rows are in a certain ratio, so  $\frac{140}{1.6} = \frac{x}{56}$  or  $\frac{56}{1.6} = \frac{x}{140}$  hence  $x = 56 \times \frac{140}{1.6} = 4900$  so \$140 buys R4900.