

Fill in the chart.

Words	Expression	Value
30 times the sum of 35 and 65	$30 \times (35 + 65)$	3000
Divide the difference between 120 and 50 by 5	$(120 - 50) \div 5$	= 14
The sum of 23 twelves and 17 twelves	$(23 \times 12) + (17 \times 12)$	204 $\frac{+276}{480}$
16 times the sum of 24 and 6	$16 \times (24 + 6)$	480
100 times sum of 125 and 30	$100 \times (125 + 30)$	15500
11 times the difference of 245 and 45	$(245 - 45) \times 11$	2200

= Solve

Compare the two expressions using <, >, or =. Explain how you know in the space below each without calculating.

100×8 \ominus $(25 \times 4) \times 7$
 100×10 \ominus 30×30 $\rightarrow 7,000$
 $= 1000$ \ominus 900
 39×11 \ominus $25 \text{ elevens} + 15 \text{ elevens}$
 40 tens $25 \text{ ten} + 15 \text{ tens}$ has more 11
 39 Elevens $\sim 40 \text{ bags elevens}$
 25×18 \ominus $9 \text{ twenty-fives, doubled}$
 18 twenty-fives 18 Twenty fives
 just same amount of 25's

Solve. Use words, numbers, or pictures to explain how your answers to Parts (a) and (b) are related.

$a. 15 \times 20 = 300$
 $b. 1.5 \times 20 = 30.0$
 15×20 is 10×20 from 1.5×20

Multiply using the standard algorithm. Show your work below each problem. Write the product in the blank.

a. $415 \times 44 = 18260$

$$\begin{array}{r} 415 \\ \times 44 \\ \hline 1660 \\ 16600 \\ \hline 18260 \end{array}$$

b. $465 \times 307 = 142755$

$$\begin{array}{r} 465 \\ \times 307 \\ \hline 3255 \\ 0000 \\ 139500 \\ \hline 142755 \end{array}$$

For a field trip, the school bought 37 sandwiches for \$4.75 each and 29 bags of chips for \$1.45 each. How much did the school spend in all?

$$\begin{array}{r} \$175.75 \\ + 42.05 \\ \hline \$217.80 \end{array}$$

$$\begin{array}{r} \$4.75 \\ \times 37 \\ \hline 32.75 \\ 160.75 \\ \hline 175.75 \end{array}$$

$$\begin{array}{r} \$1.45 \\ \times 29 \\ \hline 13.05 \\ 131.45 \\ \hline 42.05 \end{array}$$

 The School Spent \$217.80 in all.

Jeanne makes hair bows to sell at the craft fair. Each bow requires 1.6 yards of ribbon.

At the fabric store, ribbon is sold by the foot. If Jeanne wants to make 45 bows, how many feet of ribbon must she buy? Show all your work.



45 bows
45 ribbons
She must buy 216 ft of ribbon

$$1.6 \times \frac{1 \text{ yd}}{3 \text{ ft}}$$

$$1.6 \times 3 \text{ ft}$$

$$4.8 \text{ ft}$$

$$\begin{array}{r} 4.8 \text{ ft} \\ \times 45 \\ \hline 1240 \\ +1920 \\ \hline 2160 \end{array}$$

216.0 ft

$$\begin{array}{r} 1.6 \\ \times 3 \\ \hline 4.8 \text{ ft} \end{array}$$

If the ribbon costs 10¢ per foot, what is the total cost of the ribbon in dollars? Explain your reasoning, including how you decided where to place the decimal.

216 ft \Rightarrow 1 ft = 10¢ \Rightarrow $\frac{1}{10}$ dollar \Rightarrow $.10 = \frac{1}{10}$

1	.10
2	.20
3	
10	1.00

$$216 \times \frac{1}{10} \text{ dollar}$$

$$\frac{216}{10} = 216 \div 10 = \$21.60 \text{ to make 45 ribbon}$$

We place the decimal between the 1 and 6 because 10¢ is $\frac{1}{10}$ of a dollar

A manufacturer is making 100 times as many bows as Jeanne to sell in stores nationwide. Write an expression using exponents to show how many yards of ribbon the manufacturer will need. Do not calculate the total.

$$45 \times 10^2 \times 1.6 \text{ yd}$$

$$45 \times 10^2 \times 216 \text{ ft}$$

$$45 \times 10^2 \times (216 \div 3)$$

$$45 \times 10^2 \times 72$$