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

a. $45 \times 30 =$ __1,350__

$$\begin{array}{r} 45 \\ \times\ 3 \\ \hline 135 \end{array}$$

b. $4.5 \times 30 =$ __45__ tenths $\times 30 =$ __1350 tenths__ $(\div 10)$

$(\times 10)$

$135.0 \leftarrow$

The digits are exactly the same but the units in (b) are smaller so the answer is smaller. Ones are 10 times as large as tenths so the answer to (a) is ten times larger than (b).

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

a. $604 \times 33 =$ __19,932__

$$\begin{array}{r} 604 \\ \times\ 33 \\ \hline 1812 \\ +18120 \\ \hline 19,932 \end{array}$$

b. $645 \times 405 =$ __261, 225__

$$\begin{array}{r} 645 \\ \times\ 405 \\ \hline 3225 \\ +258000 \\ \hline 261,225 \end{array}$$

5. For a field trip, the school bought 45 sandwiches for $6.60 each and 38 bags of chips for $1.25 each. How much did the school spend in all?

660 cents $\leftarrow (\times 100)$

$$\begin{array}{r} \times\ 45 \\ \hline +\ 3300 \\ 26400 \\ \hline 29,700\ \text{cents} \end{array}$$

$\downarrow (\div 100)$

$297.00

125 cents $(\times 100)$

$$\begin{array}{r} \times\ 38 \\ \hline 1000 \\ +3750 \\ \hline 4750 \end{array}$$

$\downarrow (\div 100)$

$47.50

$$\begin{array}{r} \$297.00 \\ +\ 47.50 \\ \hline \$344.50 \end{array}$$

She spent $344.50

6. Jeanne makes hair bows to sell at the craft fair. Each bow requires .5 yards of ribbon.

a. At the fabric store, ribbon is sold by the foot. If Jeanne wants to make 84 bows, how many feet of ribbon must she buy? Show all your work.

$0.5$ yd $= 0.5 (\times 1$ yd$)$

$= 0.5 (\times 3$ft$)\ (\times 10)$

$= 1.5$ ft

$$\begin{array}{r} 84 \\ \times\ 15 \\ \hline 420 \\ +840 \\ \hline \end{array}$$

$(\div 10)$

$126.0$ ft of ribbon