1) Tom has 77 marbles in his collection. He puts 12 marbles in a bag. How many bags of marbles can he make? How many marbles will be left over?

\[ 77 \div 12 = 6 \text{ R } 5 \] Tom will have 6 bags and 5 marbles are left over.

5) MEASUREMENT division for \( 45 \div 8 \) (Ask: 45 is how many groups of 8?) Mary has 45 inches of ribbon. She needs to cut the ribbon into pieces that are each 8 inches long. How many pieces can she cut? How many inches of ribbon will be left over?

\[ \begin{array}{c}
\text{45} \\
\underline{\text{40}} \\
\text{5} \\
\end{array} \]

\[ < \text{number of pieces} \]

\[ \frac{8}{45} \] 5 pieces of length 8

\[ \frac{40}{5} < \text{inches remaining} \]

6) a) \[ \begin{array}{c}
2 \quad 1 \quad 8 \quad 2 \\
1 \quad 7 \quad 4 \quad 5 \quad 6 \\
\hline
1 \quad 6 \quad 0 \quad 0 \quad 0 \\
1 \quad 4 \quad 5 \quad 6 \\
\hline
6 \quad 5 \quad 6 \\
6 \quad 4 \quad 0 \\
\hline
1 \quad 6 \\
1 \quad 6 \\
\hline
0
\end{array} \]

< 2 segments of length 8000 (or 2000 segments of length 8)
< 1 segment of length 800 (or 100 segments of length 8)
< 8 segments of length 80 (or 80 segments of length 8)
< 2 segments of length 8

b) LONG DIVISION ALGORITHM
\[ \begin{array}{c}
2 \quad 1 \quad 8 \quad 2 \\
1 \quad 7 \quad 4 \quad 5 \quad 6 \\
\hline
1 \quad 4 \quad 8 \\
\hline
6 \quad 5 \\
6 \quad 4 \\
\hline
1 \quad 6 \\
1 \quad 6 \\
\hline
0
\end{array} \]

How many eights are in 17, 456?
Answer: 2182 eights

7) (3A, p 65, PRACTICE 3G)

Problem 6

\[ \begin{array}{c}
2 \text{0} \text{5} \\
\hline
4 \text{7} \\
\hline
1 \text{ remaining}
\end{array} \]

\[ \begin{array}{c}
5 \text{1} \text{R1} \\
\hline
2 \text{0} \text{5} \\
\hline
2 \text{0} \\
\hline
5 \\
\hline
4 \\
\hline
1
\end{array} \]

There are 51 boxes and 1 muffin left over.
Problem 7

\[ \begin{array}{c}
\frac{150}{5} \\
\underline{750}
\end{array} \]

Each packet weighs 150 g.

Problem 8

\[ \begin{array}{c}
\frac{316}{3} \\
\underline{316}
\end{array} \]

He makes 105 bags, 1 orange left over.

Problem 9

\[ \begin{array}{c}
\frac{74}{4} \\
\underline{74}
\end{array} \]

He can make 18 cars, 2 wheels left over.

Problem 10

\[ \begin{array}{c}
\frac{429}{3} \\
\underline{429}
\end{array} \]

There are 143 pieces.