Solve and show your thinking with a tape diagram.

1. Mrs. Onusko made 60 cookies for a bake sale. She sold 2/3 of them and gave 3/4 of the remaining cookies to the students working at the sale. How many cookies did she have left?

\[
\frac{2}{3} \text{ of } 60 = \frac{2}{3} \times 60 = 40
\]

\[
\frac{3}{4} \text{ remaining } \rightarrow \text{ students left } \rightarrow \frac{3}{4} \text{ of } 20 = \frac{3}{4} \times 20 = 15
\]

She had 5 cookies left.

2. Joakim is icing 30 cupcakes. He spreads mint icing on 1/3 of the cupcakes and chocolate on 1/2 of the remaining cupcakes. The rest will get vanilla icing. How many cupcakes have vanilla icing?

\[
\frac{1}{3} \times 30 = 10 \text{ mint}
\]

\[
\frac{1}{2} \times 20 = 10 \text{ chocolate}
\]

12 cupcakes have vanilla icing.

3. The Booster Club sells 240 cheeseburgers. 1/4 of the cheeseburgers had pickles, 1/2 of the remaining burgers had onions, and the rest had tomato. How many cheeseburgers had tomato?

\[
\frac{1}{4} \times 240 = 60 \text{ w/ pickles}
\]

\[
\frac{1}{2} \times 180 = 90 \text{ w/ onions}
\]

90 burgers have a tomato.
4. DeSean is sorting his rock collection. \(\frac{2}{3}\) of the rocks are metamorphic and \(\frac{3}{4}\) of the remainder are igneous rocks. If the 3 rocks left over are sedimentary, how many rocks does DeSean have?

\[
\text{Rocks} \begin{array}{c|c|c|c|c|c}
\text{Metamorphic} & \text{Igneous} & \text{Sedimentary} \\
\hline
12 & 12 & 3:3:3 & ? & 12 \times 3 = 36 \\
\end{array}
\]

DeSean has 36 rocks.

5. Milan puts \(\frac{1}{2}\) of her lawn-mowing money in savings and uses \(\frac{1}{2}\) of the remaining money to pay back her sister. If she has $15 left, how much did she have at first?

\[
\text{money} \begin{array}{c|c|c|c|c|c|c|c|c|c|c}
\text{Savings} & \text{Pay} & \text{Total} \\
\hline
5:5 & 5:5 & 5:5 & 5:5 & 5:5 & 5:5 & 5:5 & 5:5 & 5:5 & 5:5 & 5:5 \\
\end{array}
\]

She had $40 at first.

\[
\frac{4}{4} - \frac{1}{4} = \frac{3}{4} \text{ left} \\
\frac{1}{2} \times \frac{3}{4} = \frac{3}{8} \text{ pay to sister} \\
\frac{3}{8} \text{ left} = \$15 \\
\frac{15}{\frac{3}{8}} = \$5 \text{ each part}
\]

6. Parks is wearing several rubber bracelets. \(\frac{1}{3}\) of the bracelets are tie-dye, \(\frac{1}{4}\) are blue, and \(\frac{1}{3}\) of the remainder are camouflage. If Parks wears 2 camouflage bracelets, how many bracelets does he have on?

\[
\text{bracelets} \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c}
\text{Tie-dye} & \text{Blue} & \text{Camouflage} \\
\hline
\end{array}
\]

Parks has 12 bracelets on.

\[
\frac{2}{3} - \frac{1}{3} = \frac{1}{3} \text{ left} \\
\frac{2}{3} - \frac{1}{3} = \frac{1}{3} \text{ left} \\
\frac{1}{3} \times \frac{1}{2} = \frac{1}{6} \\
\frac{1}{3} \times \frac{1}{2} = \frac{1}{6} \\
\frac{1}{3} \text{ of } \frac{1}{2} = \frac{1}{6} \\
\frac{1}{3} \times \frac{1}{2} = \frac{1}{6} \\
\frac{1}{3} \text{ is 2 bracelets}
\]

7. Ahmed spent \(\frac{1}{2}\) of his money on a burrito and a water bottle. The burrito cost 2 times as much as the water. The burrito cost $4, how much money does Ahmed have left?

\[
\text{money} \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c}
\text{Burrito} & \text{Water} & \text{Total} \\
\hline
\end{array}
\]

Ahmed has $12 left.