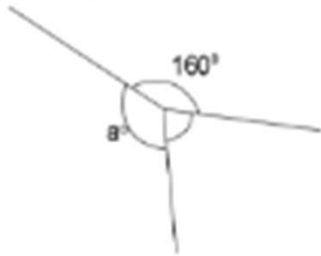


## Fraction of a Set Worksheets

Solve using tape diagrams.

- a. There are 48 students going on a field trip. One-fourth are girls. How many boys are going on the trip?

- b. Three angles are labeled below with arcs. The smallest angle is  $\frac{3}{8}$  as large as the  $160^\circ$  angle. Find the value of angle a.



- c. Abbie spent  $\frac{5}{8}$  of her money and saved the rest. If she spent \$45, how much money did she have at first?

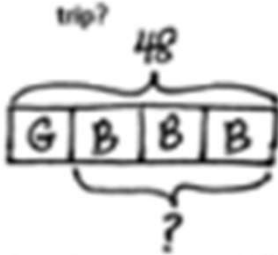
- d. Mrs. Harrison used 16 ounces of dark chocolate while baking. She used  $\frac{2}{5}$  of the chocolate to make some frosting and used the rest to make brownies. How much more chocolate did Mrs. Harrison use in the brownies than in the frosting?

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## Fraction of a Set Worksheets

2. Solve using tape diagrams.

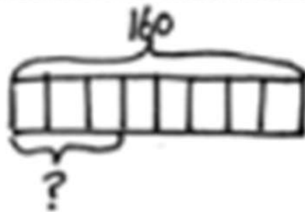
- a. There are 48 students going on a field trip. One-fourth are girls. How many boys are going on the trip?



$$\begin{aligned} 4 \text{ units} &= 48 \\ 1 \text{ unit} &= \frac{48}{4} = 12 \\ 3 \text{ units} &= 3 \times 12 \\ &= 36 \end{aligned}$$

There are 36 boys going on the field trip.

- b. Three angles are labeled below with arcs. The smallest angle is  $\frac{3}{8}$  as large as the  $160^\circ$  angle. Find the value of angle a.

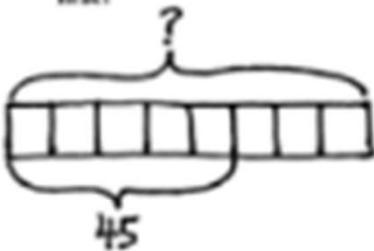


$$\begin{aligned} 8 \text{ units} &= 160 \\ 1 \text{ unit} &= \frac{160}{8} = 20 \\ 3 \text{ units} &= 3 \times 20 = 60 \end{aligned}$$

$$\begin{aligned} 160 + 60 &= 220 \\ 360 - 220 &= 140 \end{aligned}$$

The value of angle a is  $140^\circ$ .

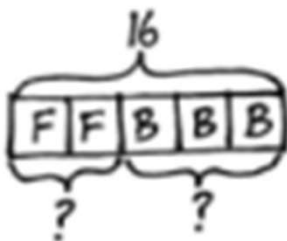
- c. Abbie spent  $\frac{5}{8}$  of her money and saved the rest. If she spent \$45, how much money did she have at first?



$$\begin{aligned} 5 \text{ units} &= 45 \\ 1 \text{ unit} &= \frac{45}{5} = 9 \\ 8 \text{ units} &= 8 \times 9 \\ &= 72 \end{aligned}$$

Abbie started with \$72.

- d. Mrs. Harrison used 26 ounces of dark chocolate while baking. She used  $\frac{2}{5}$  of the chocolate to make some frosting, and used the rest to make brownies. How much more chocolate did Mrs. Harrison use in the brownies than in the frosting?



$$\begin{aligned} 5 \text{ units} &= 16 \\ 1 \text{ unit} &= \frac{16}{5} = 3\frac{1}{5} \\ 2 \text{ units} &= 6\frac{2}{5} \\ 3 \text{ units} &= 9\frac{3}{5} \end{aligned}$$

$$9\frac{3}{5} - 6\frac{2}{5} = 3\frac{1}{5}$$

Mrs. Harrison used  $3\frac{1}{5}$  more ounces of chocolate in the brownies than in the frosting.