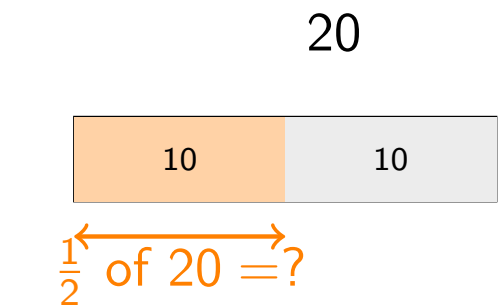
Fractions: Of Amounts & Multiplying

Starter

1. Fully simplify: $\frac{18}{24}$

2. Calculate: $2\frac{1}{3} + 1\frac{1}{2}$

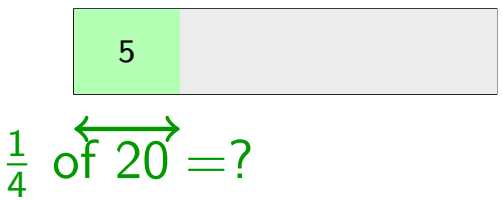


3. Using the bar models to the left:

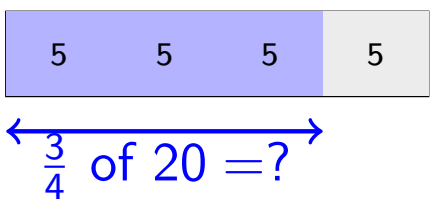
   $\frac{1}{2}$ of 20 = □ $\frac{1}{4}$ of 20 = □ $\frac{3}{4}$ of 20 = □

4. Calculate:

   $\frac{1}{3}$ of 24 $\frac{2}{3}$ of 24



5. Fill in the blank: $\frac{3}{4}$ of □ = 18



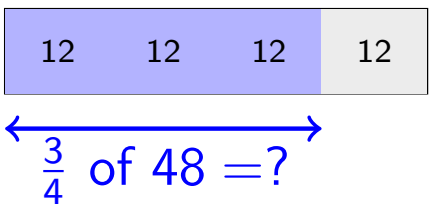
6. True or false? "$\frac{1}{2}$ of 30 = 30 ÷ 2." Explain your reasoning.

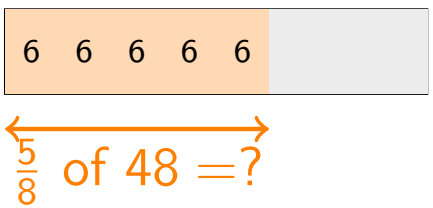
7. Find $\frac{2}{5}$ of 35.

8. A 60 cm ribbon is cut. Amy takes $\frac{3}{4}$ of it. How long is her piece?

Starter

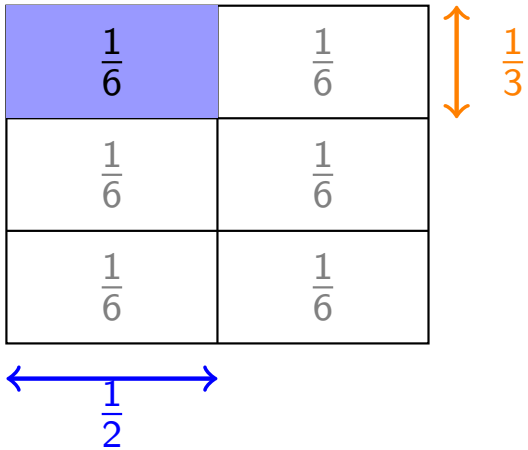
48



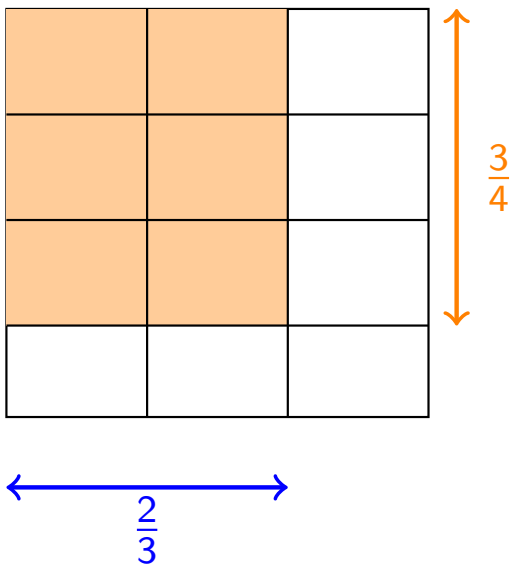


1. Order smallest to largest: $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{12}$
2. Convert $\frac{17}{5}$ to a mixed number.
3. Use the bar model to find $\frac{3}{4}$ of 48 and $\frac{5}{8}$ of 48.
4. Calculate: $\frac{5}{8}$ of 72
5. $\frac{2}{3}$ of a class of 30 are girls. How many boys are there?
6. Rania says "$\frac{3}{5}$ of $40 = 24$". Is she correct? Show your working.
7. Which is greater: $\frac{3}{4}$ of 60 or $\frac{4}{5}$ of 55?
8. Fill in the blank: $\frac{\square}{8}$ of $64 = 40$

Starter



1. What is $\frac{1}{2}$ of $\frac{1}{2}$? Draw a picture to show your answer.
2. Use the area model on the left to calculate $\frac{1}{2} \times \frac{1}{3} = \frac{\square}{\square}$
3. Use the second area model to calculate and simplify: $\frac{2}{3} \times \frac{3}{4} = \frac{\square}{\square} = \frac{\square}{\square}$
4. Calculate:
$$\frac{3}{5} \times \frac{5}{7}$$

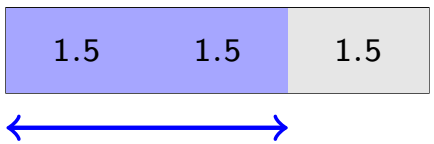


5. Simplify *then* multiply: $\frac{3}{9} \times \frac{4}{8}$
6. Find $\frac{3}{4}$ of $\frac{2}{5}$. What do you notice about "of" and "$\times$"?
7. Calculate: $1\frac{1}{2} \times \frac{1}{3}$
(Hint: convert to improper first.)

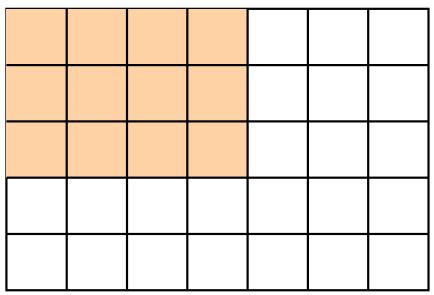
Starter

1. Simplify: $\frac{24}{36}$ 2. $3\frac{1}{4} - 1\frac{2}{3}$ 3. $\frac{5}{6}$ of 42

$4\frac{1}{2}$ m wall



$$\frac{3}{5} \times \frac{4}{7}$$



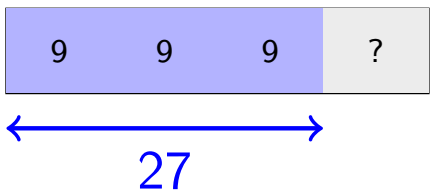
4. A wall is $4\frac{1}{2}$ m long. A mural covers $\frac{2}{3}$ of it. Use the bar model to find the length of the mural.
5. Use the area model to calculate: $\frac{3}{5} \times \frac{4}{7} = \frac{\square}{\square}$
6. Which is greater: $\frac{2}{3} \times \frac{3}{4}$, or $\frac{3}{4}$ of $\frac{2}{3}$? Explain.
7. Fill in the blank:

$$\frac{3}{5} \times \square = \frac{6}{35}$$

8. True or false? "Multiplying two proper fractions always gives a smaller result than either fraction." Explain or give a counterexample.

Starter

1. Simplify: $\frac{20}{30}$
2. Simplify: $\frac{84}{108}$
3. Convert $4\frac{3}{5}$ to an improper fraction.
4. Calculate: $2\frac{3}{4} + 1\frac{3}{5}$
5. $\frac{3}{4}$ of a number is 27. Use the bar model to find the whole number.



6. Jack spends $\frac{1}{3}$ of his pocket money on Monday and $\frac{1}{4}$ on Tuesday. What fraction remains?
7. A jug holds $1\frac{1}{2}$ litres. You fill $\frac{2}{3}$ of it. How many millilitres is that?
8. Show that $\frac{2}{3} \times \frac{3}{4} = \frac{3}{4} \times \frac{2}{3}$ using area diagrams.