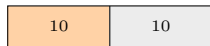


Fractions: Of Amounts & Multiplying

Starter (1 of 3)

20



$\frac{1}{2}$ of 20 = ?



$\frac{1}{4}$ of 20 = ?



$\frac{3}{4}$ of 20 = ?

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

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

3. Using the **bar models** to the left:

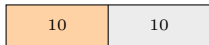
$\frac{1}{2}$ of 20 = —

$\frac{1}{4}$ of 20 = —

$\frac{3}{4}$ of 20 = —

Starter (1 of 3)

20



$\frac{1}{2}$ of 20 = 10



$\frac{1}{4}$ of 20 = 5



$\frac{3}{4}$ of 20 = 15

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

$\frac{3}{4}$

2. Calculate: $2\frac{1}{3} + 1\frac{1}{2} = 3\frac{5}{6}$

بارماڈلز

3. Using the **bar models** to the left:

$\frac{1}{2}$ of 20 = 10

$\frac{1}{4}$ of 20 = 5

$\frac{3}{4}$ of 20 = 15

Starter (2 of 3)

4. Calculate:

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

5. Fill in the blank: $\frac{3}{4}$ of $\underline{\hspace{1cm}}$ = 18

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

Starter (2 of 3)

4. Calculate:

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

8 and 16

5. Fill in the blank: $\frac{3}{4}$ of 24 = 18

6. Find $\frac{2}{5}$ of 35. 14

Starter (3 of 3)

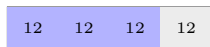
7. Amy cuts a 60 cm ribbon and takes $\frac{3}{4}$ of it. How long is her piece?
8. True or false? " $\frac{1}{2}$ of $30 = 30 \div 2$." Explain your reasoning.

Starter (3 of 3)

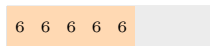
7. Amy cuts a 60 cm ribbon and takes $\frac{3}{4}$ of it. How long is her piece? 45 cm
8. True or false? " $\frac{1}{2}$ of $30 = 30 \div 2$." Explain your reasoning. True. $\frac{1}{2}$ of $30 = 15$ and $30 \div 2 = 15$.

Starter (1 of 3)

48



$\frac{3}{4}$ of 48 = ?



$\frac{5}{8}$ of 48 = ?

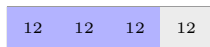
1. Order smallest to largest: $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{12}$

2. Convert $\frac{17}{5}$ to a **mixed number**. مخلوط عدد

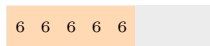
3. Use the **bar model** to find $\frac{3}{4}$ of 48 and $\frac{5}{8}$ of 48. بارماڈل

Starter (1 of 3)

48



$\frac{3}{4}$ of 48 = 36



$\frac{5}{8}$ of 48 = 30

1. Order smallest to largest: $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{12}$ $\frac{3}{8} < \frac{5}{12} < \frac{1}{2}$

2. Convert $\frac{17}{5}$ to a **mixed number**. مخلوط عدد

$$3\frac{2}{5}$$

3. Use the **bar model** to find $\frac{3}{4}$ of 48 and $\frac{5}{8}$ of 48. بارماڈل
- 36 and 30

Starter (2 of 3)

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.

Starter (2 of 3)

4. Calculate: $\frac{5}{8}$ of 72 = 45
5. $\frac{2}{3}$ of a class of 30 are girls. How many boys are there? 10 boys
6. Rania says " $\frac{3}{5}$ of 40 = 24". Is she correct? Show your working. Yes;
 $\frac{3}{5} \times 40 = 24.$

Starter (3 of 3)

7. Which is greater:

$\frac{3}{4}$ of 60 or $\frac{4}{5}$ of 55?

8. Fill in the blank:

$$\frac{\quad}{8} \text{ of } 64 = 40$$

Starter (3 of 3)

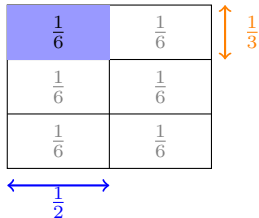
7. Which is greater:

$\frac{3}{4}$ of 60 or $\frac{4}{5}$ of 55? $\frac{3}{4}$ of 60 (= 45)

8. Fill in the blank:

$$\frac{5}{8} \text{ of } 64 = 40$$

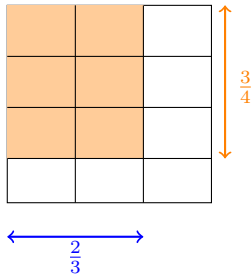
Starter (1 of 3)



1. What is $\frac{1}{2}$ of $\frac{1}{3}$? Draw a picture to show your answer.

رقبہ ماڈل

2. Use the **area model** on the left to calculate $\frac{1}{2} \times \frac{1}{3} = \frac{_}{_}$



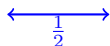
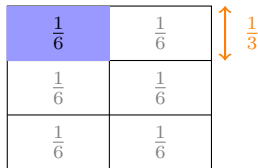
رقبہ ماڈل

سادہ کریں

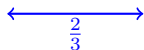
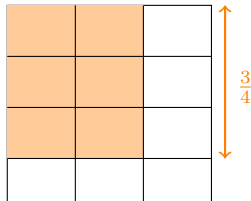
3. Use the second **area model** to calculate and **simplify**:

$$\frac{2}{3} \times \frac{3}{4} = \frac{_}{_} = \frac{_}{_}$$

Starter (1 of 3)



Q1: $\frac{1}{2}$ of $\frac{1}{2} = \frac{1}{4}$



1. What is $\frac{1}{2}$ of $\frac{1}{2}$? Draw a picture to show your answer.

$$\frac{1}{4}$$

رقبه ماڈل

2. Use the **area model** on the left to calculate $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

رقبه ماڈل

سادہ کریں

3. Use the second **area model** to calculate and **simplify**:

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2}$$

Starter (2 of 3)

4. Calculate:

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

5. **سادہ کریں** **ضرب دیں**
Simplify then multiply:

$$\frac{3}{9} \times \frac{4}{8}$$

Starter (2 of 3)

4. Calculate:

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

$$= \frac{3}{7}$$

5. **سادہ کریں** ضرب دیں **Simplify then multiply:**

$$\frac{3}{9} \times \frac{4}{8}$$

$$= \frac{1}{6}$$

Starter (3 of 3)

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 (3 of 3)

6. Find $\frac{3}{4}$ of $\frac{2}{5}$. What do you notice about “of” and “ $\times$ ”? $\frac{3}{10}$; “of” means ضرب دينا multiply.

7. Calculate: $1\frac{1}{2} \times \frac{1}{3}$

(Hint: convert to improper first.) $= \frac{1}{2}$

Starter (1 of 3)

1. سادہ کریں
Simplify: $\frac{24}{36}$

2. $3\frac{1}{4} - 1\frac{2}{3}$

3. $\frac{5}{6}$ of 42

Starter (1 of 3)

1. سادہ کریں Simplify: $\frac{24}{36}$

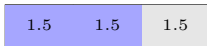
$$\frac{2}{3}$$

2. $3\frac{1}{4} - 1\frac{2}{3} = 1\frac{7}{12}$

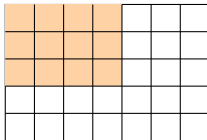
3. $\frac{5}{6}$ of 42 = 35

Starter (2 of 3)

$4\frac{1}{2}$ 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

بارماڈل

bar model to find the length of the mural.

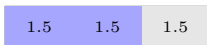
رقبہ ماڈل

5. Use the area model to calculate: $\frac{3}{5} \times \frac{4}{7} = \frac{\quad}{\quad}$

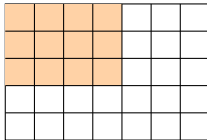
6. Which is greater: $\frac{2}{3} \times \frac{3}{4}$, or $\frac{3}{4}$ of $\frac{2}{3}$? Explain.

Starter (2 of 3)

$4\frac{1}{2}$ 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

بارماڈل

bar model to find the length of the mural.

3 m

رقبہ ماڈل

5. Use the area model to calculate: $\frac{3}{5} \times \frac{4}{7} = \frac{12}{35}$

6. Which is greater: $\frac{2}{3} \times \frac{3}{4}$, or $\frac{3}{4}$ of $\frac{2}{3}$? Explain. They are equal ($\frac{1}{2}$).

Starter (3 of 3)

7. Fill in the blank:

$$\frac{3}{5} \times \underline{\quad} = \frac{6}{35}$$

8. True or false? “^{ضرب دینا} **Multiplying** two ^{کسور مناسب} **proper fractions** always gives a smaller result than either ^{کسر} **fraction**.” ^{مخالف مثال} Explain or give a **counterexample**.

Starter (3 of 3)

7. Fill in the blank:

$$\frac{3}{5} \times \frac{2}{7} = \frac{6}{35}$$

8. True or false? “^{كسور مناسب} ^{ضرب دينا} ^{كسر} ^{مخالف مثال} Multiplying two proper fractions always gives a smaller result than either fraction.” Explain or give a counterexample.

True; e.g. $\frac{2}{3} \times \frac{3}{4} = \frac{1}{2}$, which is smaller than both.

Starter (1 of 3)

1. سادہ کریں Simplify: $\frac{20}{30}$

2. سادہ کریں Simplify: $\frac{84}{108}$

3. Convert $4\frac{3}{5}$ to an غیر مناسب کسر improper fraction.

Starter (1 of 3)

1. سادہ کریں Simplify: $\frac{20}{30}$

$$\frac{2}{3}$$

2. سادہ کریں Simplify: $\frac{84}{108}$

$$\frac{7}{9}$$

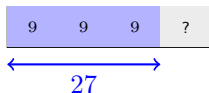
3. Convert $4\frac{3}{5}$ to an غیر مناسب کسر improper fraction.

$$\frac{23}{5}$$

Starter (2 of 3)

4. Calculate: $2\frac{3}{4} + 1\frac{3}{5}$

5. $\frac{3}{4}$ of a number is 27. Use the **بارماڈل** bar model to find the whole number.

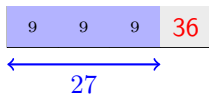


6. Jack spends $\frac{1}{3}$ of his pocket money on Monday and $\frac{1}{4}$ on Tuesday. What **fraction** remains?

Starter (2 of 3)

4. Calculate: $2\frac{3}{4} + 1\frac{3}{5} = 4\frac{7}{20}$

5. $\frac{3}{4}$ of a number is 27. Use the **بارماڈل** bar model to find the whole number.



6. Jack spends $\frac{1}{3}$ of his pocket money on Monday and $\frac{1}{4}$ on

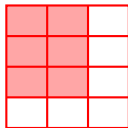
Tuesday. What **فراکشن** fraction remains?

$$\frac{5}{12}$$

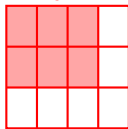
Starter (3 of 3)

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.

Starter (3 of 3)



$$\text{Q7: } \frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$$



$$\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$$

7. A jug holds $1\frac{1}{2}$ litres. You fill $\frac{2}{3}$ of it. How many millilitres is that? **1000 mL**
8. Show that $\frac{2}{3} \times \frac{3}{4} = \frac{3}{4} \times \frac{2}{3}$ using area diagrams.