

Fractions: Starters

Starter 1



A



B



C



D

Questions

1. Which shapes (A, B, C, D) are divided into equal parts?
2. In shape B, what fraction is shaded?
3. Draw a rectangle divided into 5 equal parts. Shade $\frac{3}{5}$.
4. Which is larger: $\frac{2}{5}$ or $\frac{3}{5}$?
5. Which is larger: $\frac{3}{5}$ or $\frac{3}{4}$?
6. Order the following fractions from smallest to largest:
 $\frac{1}{100}$, $\frac{100}{1}$, $\frac{1}{10}$, $\frac{10}{1}$, $\frac{1}{1}$

Starter 1



A



B



C



D



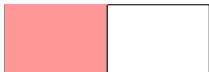
Q3: $\frac{3}{5}$

Questions

1. Which shapes (A, B, C, D) are divided into equal parts? **B and C**
2. In shape B, what fraction is shaded? $\frac{1}{4}$
3. Draw a rectangle divided into 5 equal parts. Shade $\frac{3}{5}$.
4. Which is larger: $\frac{2}{5}$ or $\frac{3}{5}$? $\frac{3}{5}$
5. Which is larger: $\frac{3}{5}$ or $\frac{3}{4}$? $\frac{3}{4}$
6. Order the following fractions from smallest to largest:

$$\frac{1}{100}, \frac{100}{1}, \frac{1}{10}, \frac{10}{1}, \frac{1}{1}$$
$$\frac{1}{100}, \frac{1}{10}, \frac{1}{1}, \frac{10}{1}, \frac{100}{1}$$

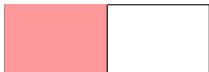
Starter 2



Questions

1. Write the fraction shaded for each bar.
2. Is the same proportion of each bar shaded?
3. Use the bars to fill in the blanks: $\frac{?}{2} = \frac{?}{4} = \frac{?}{6}$
4. Shade $\frac{2}{3}$ of a bar divided into 9 parts.
5. Find the missing numerator:
 $\frac{2}{3} = \frac{?}{9}$
6. Find the missing numerator:
 $\frac{1}{3} = \frac{?}{6}$.
7. Which two fractions are equivalent: $\frac{1}{2}, \frac{2}{5}, \frac{4}{8}, \frac{3}{6}$?

Starter 2

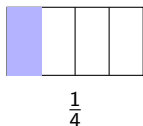
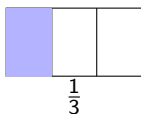
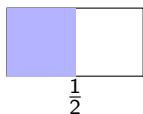


Q4: $\frac{6}{9} = \frac{2}{3}$

Questions

1. Write the fraction shaded for each bar. $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$
2. Is the same proportion of each bar shaded? **Yes**
3. Use the bars to fill in the blanks: $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$
4. Shade $\frac{2}{3}$ of a bar divided into 9 parts.
5. Find the missing numerator:
 $\frac{2}{3} = \frac{6}{9}$
6. Find the missing numerator:
 $\frac{1}{3} = \frac{2}{6}$.
7. Which two fractions are equivalent: $\frac{1}{2}$, $\frac{2}{5}$, $\frac{4}{8}$, $\frac{3}{6}$?
 $\frac{1}{2} = \frac{4}{8} = \frac{3}{6}$

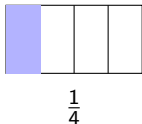
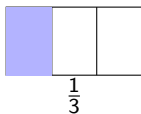
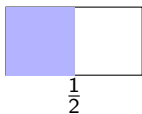
Starter 3: Comparing Fractions



Questions

1. Which is larger: $\frac{1}{2}$ or $\frac{1}{3}$?
2. Compare $\frac{2}{5}$ and $\frac{4}{5}$. Which is bigger?
3. Convert $\frac{3}{4}$ and $\frac{5}{8}$ to a common denominator. Which is larger?
4. Order from smallest to largest: $\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{2}$.
5. Sam ate $\frac{2}{3}$ of a pizza, Lee ate $\frac{5}{6}$ of the same pizza. Who ate more?
6. Compare $\frac{4}{6}$ and $\frac{2}{3}$.

Starter 3: Comparing Fractions

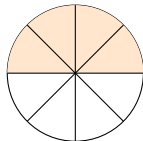


Questions

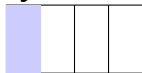
1. Which is larger: $\frac{1}{2}$ or $\frac{1}{3}$? $\frac{1}{2}$
2. Compare $\frac{2}{5}$ and $\frac{4}{5}$. Which is bigger? $\frac{4}{5}$
3. Convert $\frac{3}{4}$ and $\frac{5}{8}$ to a common denominator. Which is larger?
 $\frac{3}{4} = \frac{6}{8}$; larger: $\frac{3}{4}$
4. Order from smallest to largest:
 $\frac{1}{3}, \frac{1}{6}, \frac{1}{2}, \frac{1}{6}, \frac{1}{3}, \frac{1}{2}$
5. Sam ate $\frac{2}{3}$ of a pizza, Lee ate $\frac{5}{6}$ of the same pizza. Who ate more? Lee ate more.
6. Compare $\frac{4}{6}$ and $\frac{2}{3}$. Equal: $\frac{4}{6} = \frac{2}{3}$

Starter 4

Fractions everywhere



Pizza



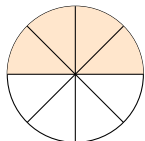
Chocolate

Questions

1. A cake is cut into 10 equal slices. If 3 are eaten, what fraction remains? ____.
2. There are 30 students. $\frac{2}{5}$ walk to school. How many walk?
3. A ruler is 24 cm long. Mark $\frac{1}{2}$ and $\frac{1}{3}$ on it. How many cm is each?
4. Which is longer: $\frac{3}{4}$ of an hour or $\frac{2}{3}$ of an hour? (1 hour = 60 mins)
5. You have \$30. You spend $\frac{2}{5}$ on a book. How much do you spend? How much left?

Starter 4

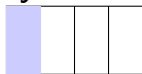
Fractions everywhere



Pizza

$$\frac{1}{3} = 8 \text{ cm}$$

$$\frac{1}{2} = 12 \text{ cm}$$

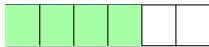


Chocolate

Questions

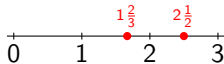
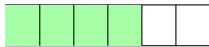
1. A cake is cut into 10 equal slices. If 3 are eaten, what fraction remains? $\frac{7}{10}$.
2. There are 30 students. $\frac{2}{5}$ walk to school. How many walk? **12 students walk**
3. A ruler is 24 cm long. Mark $\frac{1}{2}$ and $\frac{1}{3}$ on it. How many cm is each?
4. Which is longer: $\frac{3}{4}$ of an hour or $\frac{2}{3}$ of an hour? (1 hour = 60 mins) **$\frac{3}{4}$ hour (45 mins) is longer**
5. You have \$30. You spend $\frac{2}{5}$ on a book. How much do you spend? How much left? **Spend \$12, left \$18**

Starter 5



1. $\frac{1}{2} = \frac{?}{6}$
2. Write the fraction represented by each bar. (Extension) show that they are equivalent
3. $\frac{5}{6} = \frac{10}{?}$
4. Mark $1\frac{2}{3}$ and $2\frac{1}{2}$ on the number line. Convert each to an improper fraction.
5. $\frac{2}{3} = \frac{?}{12}$
6. Which are equivalent to $\frac{3}{7}$:
 $\frac{9}{21}, \frac{6}{14}, \frac{12}{28}, \frac{8}{21}$?
7. Write 3 fractions equivalent to $\frac{4}{9}$
8. Compare ($< > =$) these fractions:
 $\frac{2}{5} \square \frac{6}{15}$
9. Fully simplify $\frac{48}{18}$

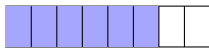
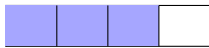
Starter 5



- $\frac{1}{2} = \frac{3}{6}$
- Write the fraction represented by each bar. (Extension) show that they are equivalent $\frac{2}{3}, \frac{4}{6}, \frac{6}{9}$
- $\frac{5}{6} = \frac{10}{12}$
- Mark $1\frac{2}{3}$ and $2\frac{1}{2}$ on the number line. Convert each to an improper fraction.
 $1\frac{2}{3} = \frac{5}{3}; 2\frac{1}{2} = \frac{5}{2}$
- $\frac{2}{3} = \frac{8}{12}$

- Which are equivalent to $\frac{3}{7}$:
 $\frac{9}{21}, \frac{6}{14}, \frac{12}{28}, \frac{8}{21}$?
 $\frac{9}{21}, \frac{6}{14}, \frac{12}{28}$
- Write 3 fractions equivalent to $\frac{4}{9}$
 $\frac{8}{18}, \frac{12}{27}, \frac{16}{36}$
- Compare ($< > =$) these fractions:
 $\frac{2}{5} \square \frac{6}{15} =$
- Fully simplify $\frac{48}{18}$ $\frac{8}{3}$
(or $2\frac{2}{3}$)

Starter 6



1. $\frac{3}{5} = \frac{?}{20}$

2. Write the fraction shown by each bar. (Extension) Explain why they represent the same amount.

3. $\frac{4}{7} = \frac{?}{21}$

4. Mark $1\frac{3}{4}$ and $2\frac{2}{3}$ on the number line. Convert both to improper fractions.

6. Which are equivalent to $\frac{5}{9}$:

$\frac{10}{18}, \frac{15}{27}, \frac{12}{20}, \frac{25}{45}$?

7. Write 3 fractions equivalent to $\frac{7}{12}$.

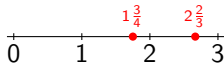
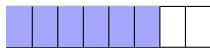
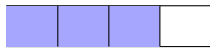
8. Order these fractions in ascending order:

$\frac{2}{8}, \frac{4}{6}, \frac{5}{12}$

9. Compare using $<$, $>$, or $=$:

$\frac{9}{14} \square \frac{19}{28}$

Starter 6



1. $\frac{3}{5} = \frac{12}{20}$

2. Write the fraction shown by each bar. (Extension) Explain why they represent the same amount.

$\frac{3}{4}, \frac{6}{8}, \frac{9}{12}$

3. $\frac{4}{7} = \frac{12}{21}$

4. Mark $1\frac{3}{4}$ and $2\frac{2}{3}$ on the number line.

Convert both to improper fractions.

$1\frac{3}{4} = \frac{7}{4}, 2\frac{2}{3} = \frac{8}{3}$

6. Which are equivalent to $\frac{5}{9}$:

$\frac{10}{18}, \frac{15}{27}, \frac{12}{20}, \frac{25}{45}$
 $\frac{10}{18}, \frac{15}{27}, \frac{25}{45}$

7. Write 3 fractions equivalent to $\frac{7}{12}$.

$\frac{14}{24}, \frac{21}{36}, \frac{28}{48}$

8. Order these fractions in ascending order:

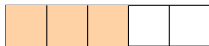
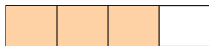
$\frac{2}{8}, \frac{4}{6}, \frac{5}{12}$

$\frac{2}{8}, \frac{5}{12}, \frac{4}{6}$

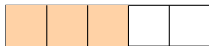
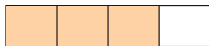
9. Compare using $<$, $>$, or $=$:

$\frac{9}{14} \square \frac{19}{28}$

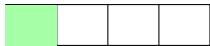
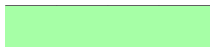
Starter 7



Starter 7



Starter 8



1. Write the improper fraction shown by the diagram.

2. Write the mixed number represented by the green bars in the diagram.

3. Mark $1\frac{1}{4}$ and $2\frac{3}{4}$ on the number line.

4. Convert: $\frac{13}{5}$ to a mixed number.

5. Convert:

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

to an improper fraction.

6. Fully simplify:

$$\frac{16}{40}$$

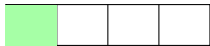
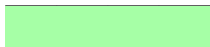
7. Which is greater:

$$\frac{4}{9} \square \frac{4}{11}$$

8. Order from smallest to largest:

$$\frac{6}{5}, \quad 1\frac{1}{2}, \quad \frac{7}{4}$$

Starter 8



1. Write the improper fraction shown by the diagram. $\frac{5}{4}$

2. Write the mixed number represented by the green bars in the diagram. $1\frac{1}{4}$

3. Mark $1\frac{1}{4}$ and $2\frac{3}{4}$ on the number line. At $1\frac{1}{4}$ and $2\frac{3}{4}$

4. Convert: $\frac{13}{5}$ to a mixed number. $2\frac{3}{5}$

5. Convert:

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

to an improper fraction. $\frac{11}{3}$

6. Fully simplify:

$$\frac{16}{40}$$

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

7. Which is greater:

$$\frac{4}{9} \square \frac{4}{11}$$

$$\frac{4}{9}$$

8. Order from smallest to largest:

$$\frac{6}{5}, 1\frac{1}{2}, \frac{7}{4}$$

$$\frac{6}{5}, 1\frac{1}{2}, \frac{7}{4}$$

Starter 9

1. Write the fractions shown by the bars.

$$\frac{5}{6} \square \frac{5}{8}$$

2. Which is larger:

3. Write 3 fractions equivalent to:

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

4. Fully simplify:

$$\frac{54}{72}$$

5. Convert to mixed

6. Convert to improper fractions:

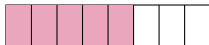
$$4\frac{1}{3}, \quad 2\frac{5}{6}$$

7. Order from smallest to largest:

$$\frac{123}{1234}, \quad \frac{321}{1234}, \quad \frac{111}{1234}$$

8. Challenge:

Which is larger?



Starter 9

1. Write the fractions shown by the bars. $\frac{5}{6}$
and $\frac{5}{8}$

2. Which is larger:

$$\frac{5}{6} \square \frac{5}{8}$$

>

3. Write 3 fractions equivalent to:

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

$$\frac{4}{10}, \frac{6}{15}, \frac{8}{20}$$

4. Fully simplify:

$$\frac{54}{72}$$

$$\frac{3}{4}$$

5. Convert to mixed

$$2\frac{5}{6}, 2\frac{4}{9}$$

6. Convert to improper fractions:

$$4\frac{1}{3}, 2\frac{5}{6}$$

$$\frac{13}{3}, \frac{17}{6}$$

7. Order from smallest to largest:

$$\frac{123}{1234}, \frac{321}{1234}, \frac{111}{1234}$$

$$\frac{111}{1234}, \frac{123}{1234}, \frac{321}{1234}$$

8. Challenge:

Which is larger?

