

# Fractions: Starters

# Starter 1



A



B



C

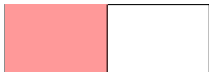


D

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

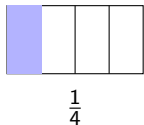
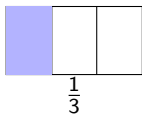
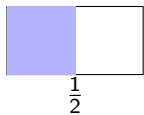
## Starter 2



## 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 3: Comparing Fractions

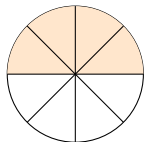


### Questions

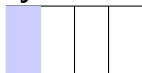
1. Which is larger:  $\frac{1}{2}$  or  $\frac{1}{3}$ ?
2. Compare  $\frac{2}{5}$  and  $\frac{4}{5}$ . Which is bigger?
3. Convert  $\frac{3}{4}$  and  $\frac{5}{8}$  to a common denominator. Which is larger?
4. Order from smallest to largest:  $\frac{1}{3}$ ,  $\frac{1}{6}$ ,  $\frac{1}{2}$ .
5. Sam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

### Fractions everywhere



Pizza

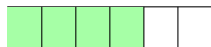
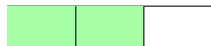


Chocolate

### Questions

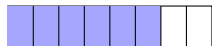
1. A cake is cut into 10 equal slices. If 3 are eaten, what fraction remains?
2. There are 30 students.  $\frac{2}{5}$  walk to school. How many walk?
3. A ruler is 24 cm long. Mark  $\frac{1}{2}$  and  $\frac{1}{3}$  on it. How many cm is each?
4. Which is longer:  $\frac{3}{4}$  of an hour or  $\frac{2}{3}$  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?
6. A recipe needs  $\frac{3}{4}$  cup of milk. You only have a  $\frac{1}{4}$  cup measure.

## Starter 5



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

## 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.

5. Fully simplify:  $\frac{42}{56}$

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  $\frac{7}{12}$ .

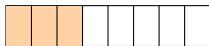
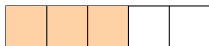
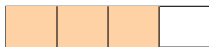
8. Order these fractions in ascending order:

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

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

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

# Starter 7



1. Write the fraction represented by each bar.
2. Which is largest:

$$\frac{3}{4}, \quad \frac{3}{5}, \quad \frac{3}{8}$$

3. (Extension) explain why fractions with the same numerator change size when the denominator changes.
4. Compare using  $<$ ,  $>$  or  $=$ :

$$\frac{5}{6} \square \frac{5}{9}$$

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

6. Fully simplify:  $\frac{27}{36}$
7. Write these as mixed numbers:

$$\frac{11}{4}, \quad \frac{9}{2}$$

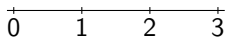
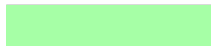
8. Convert to improper fractions:

$$2\frac{3}{5}, \quad 1\frac{7}{8}$$

9. Which is bigger:

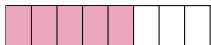
$$\frac{7}{10} \square \frac{7}{12}$$

## 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:  
 $\frac{4}{9}$    $\frac{4}{11}$
8. Order from smallest to largest:  
 $\frac{6}{5}$ ,  $1\frac{1}{2}$ ,  $\frac{7}{4}$

## Starter 9



1. Write the fractions shown by the bars.
2. Which is larger:

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

3. Write 3 fractions equivalent to:

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

4. Fully simplify:

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

5. Convert to mixed numbers:

$$\frac{17}{6}, \quad \frac{22}{9}$$

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?

$$2\frac{1}{4} \square 2\frac{2}{5}$$