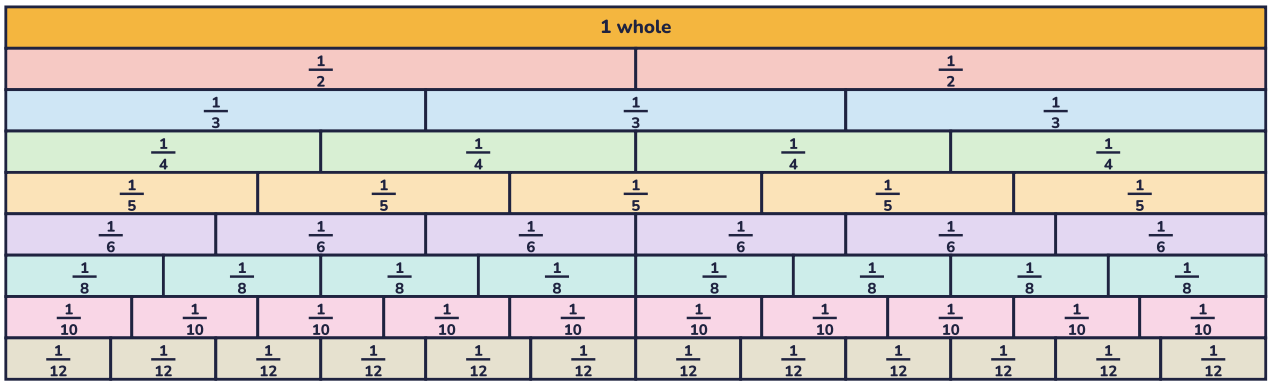
CHEAT SHEET · FRACTIONS

Acorn & Ink

Fractions made easy

Equal parts! In $\frac{3}{5}$ the whole is cut into **5** equal parts (bottom number) and you have **3** (top number).



Of an amount

Divide by the bottom, times by the top.

$\frac{3}{5}$ of 40: 40 ÷ 5 = 8, 8 × 3 = **24**

Equivalent and simplest form

Do the same to the top and the bottom.

$\frac{2}{3} = \frac{8}{12}$ (× 4) $\frac{18}{24} = \frac{3}{4}$ (÷ 6)

Comparing

Make the bottom numbers the same.

$\frac{2}{3} = \frac{10}{15}$ is bigger than $\frac{3}{5} = \frac{9}{15}$

Mixed numbers

11 ÷ 4 = 2 r 3, so $\frac{11}{4} = 2\frac{3}{4}$

3 × 5 + 2 = 17, so $3\frac{2}{5} = \frac{17}{5}$

Add and subtract

Same bottoms first, then the tops.

$\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \mathbf{\frac{7}{12}}$

Multiply and divide

$\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ (top × top, bottom × bottom)

$\frac{1}{3} \div 2 = \frac{1}{6}$ (times the bottom by 2)

Working backwards

$\frac{1}{4}$ is 9, so the whole is 9 × 4 = **36**

$\frac{2}{5}$ is 14, so $\frac{1}{5}$ is 7 and the whole is **35**

Watch out

Never add the bottom numbers.

$\frac{1}{8}$ is **smaller** than $\frac{1}{4}$ (more, smaller parts).

Fractions, decimals and percentages

$\frac{1}{2}$ = 0.5 = **50%**	$\frac{1}{4}$ = 0.25 = **25%**	$\frac{3}{4}$ = 0.75 = **75%**	$\frac{1}{5}$ = 0.2 = **20%**
$\frac{1}{10}$ = 0.1 = **10%**	$\frac{1}{8}$ = 0.125 = **12.5%**	$\frac{3}{8}$ = 0.375 = **37.5%**	$\frac{1}{100}$ = 0.01 = **1%**

FRACTIONS · AGES 7–9

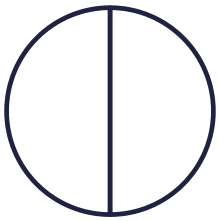
Shade the fraction

Acorn & Ink

Colour the fraction shown, or write the fraction that is coloured.

Name _____ Date _____ Score _____ / 12

Colour $\frac{1}{2}$



What fraction is coloured?



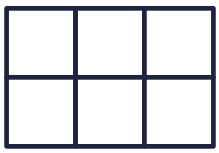
Colour $\frac{1}{3}$



What fraction is coloured?



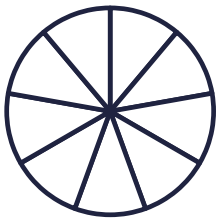
Colour $\frac{1}{6}$



What fraction is coloured?



Colour $\frac{5}{9}$



What fraction is coloured?



Colour $\frac{1}{4}$



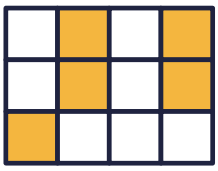
What fraction is coloured?



Colour $\frac{2}{4}$



What fraction is coloured?



Count all the equal parts for the bottom number. Count the coloured parts for the top number.

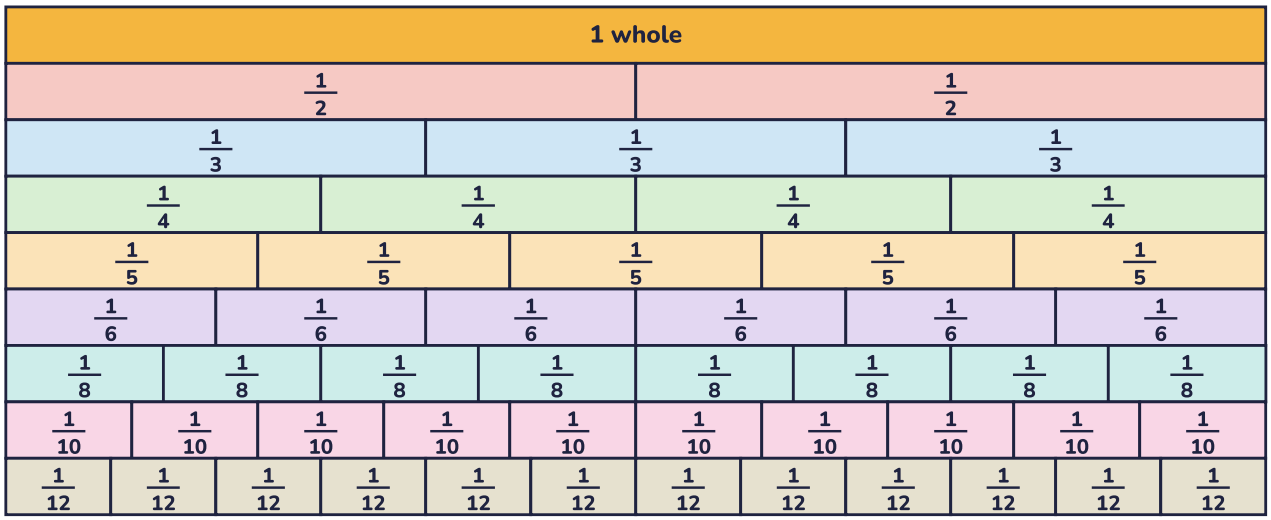
FRACTIONS · AGES 7–9

Equivalent fractions

Acorn & Ink

Use the fraction wall to find the missing numbers. The fractions on each side cover the same length.

Name _____ Date _____ Score _____ / 12



1. $\frac{4}{10} = \frac{\square}{5}$

2. $\frac{6}{10} = \frac{\square}{5}$

3. $\frac{10}{12} = \frac{\square}{6}$

4. $\frac{4}{8} = \frac{1}{\square}$

5. $\frac{1}{2} = \frac{\square}{12}$

6. $\frac{4}{6} = \frac{\square}{12}$

7. $\frac{6}{12} = \frac{\square}{4}$

8. $\frac{2}{6} = \frac{4}{\square}$

9. $\frac{5}{10} = \frac{\square}{8}$

10. $\frac{4}{5} = \frac{\square}{10}$

11. $\frac{2}{3} = \frac{\square}{6}$

12. $\frac{3}{6} = \frac{4}{\square}$

Acorn & Ink

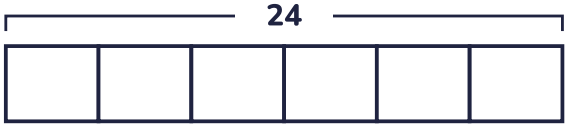
Fractions of amounts

Find each fraction of the amount.

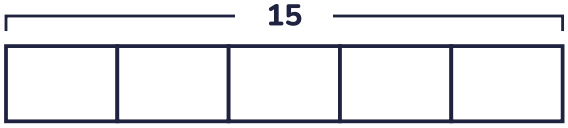
Name _____ Date _____ Score _____ / 16

Use the bar to help Write how much each part is worth.

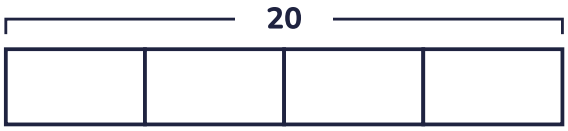
$\frac{1}{6}$ of 24 = _____



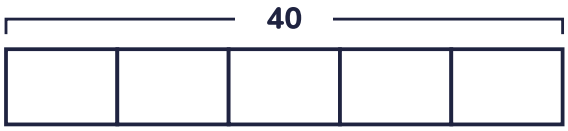
$\frac{1}{5}$ of 15 = _____



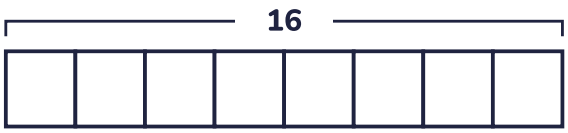
$\frac{3}{4}$ of 20 = _____



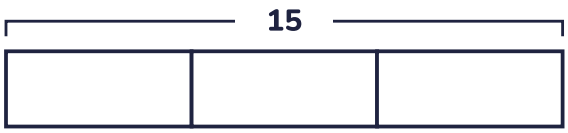
$\frac{3}{5}$ of 40 = _____



$\frac{1}{8}$ of 16 = _____



$\frac{1}{3}$ of 15 = _____



Now try these Divide by the bottom, times by the top.

1. $\frac{1}{3}$ of 6 = _____
2. $\frac{1}{3}$ of 33 = _____
3. $\frac{1}{8}$ of 72 = _____
4. $\frac{1}{8}$ of 32 = _____
5. $\frac{2}{3}$ of 12 = _____
6. $\frac{1}{4}$ of 40 = _____
7. $\frac{1}{2}$ of 22 = _____
8. $\frac{1}{4}$ of 8 = _____
9. $\frac{1}{6}$ of 30 = _____
10. $\frac{1}{10}$ of 110 = _____

FRACTIONS · AGES 7–9

Add and subtract fractions

Acorn & Ink

The bottom numbers match, so only the top numbers change.

Name _____ Date _____ Score _____ / 12

1. $\frac{4}{11} + \frac{2}{11} = \square$



2. $\frac{3}{10} + \frac{6}{10} = \square$



3. $\frac{3}{10} - \frac{1}{10} = \square$



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



5. $\frac{1}{10} + \frac{4}{10} = \square$



6. $\frac{2}{4} - \frac{1}{4} = \square$



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



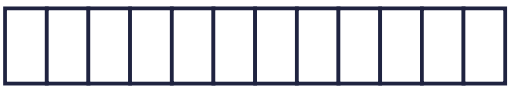
8. $\frac{1}{6} + \frac{4}{6} = \square$



9. $\frac{4}{5} - \frac{1}{5} = \square$



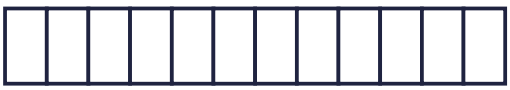
10. $\frac{7}{12} + \frac{4}{12} = \square$



11. $\frac{4}{6} + \frac{1}{6} = \square$



12. $\frac{3}{12} + \frac{1}{12} = \square$



The bottom number stays the same. Add or take away the top numbers. Colour the bar to check.

FRACTIONS · AGES 7–9

Compare and order

Acorn & Ink

Remember: when the top numbers are the same, a bigger bottom number means smaller parts.

Name _____ Date _____ Score _____ / 16

Bigger or smaller? Write <, > or = in each circle.

1. $\frac{1}{2}$ ◯ $\frac{1}{3}$

2. $\frac{6}{8}$ ◯ $\frac{2}{8}$

3. $\frac{3}{10}$ ◯ $\frac{2}{10}$

4. $\frac{1}{11}$ ◯ $\frac{1}{12}$

5. $\frac{2}{7}$ ◯ $\frac{5}{7}$

6. $\frac{4}{10}$ ◯ $\frac{2}{10}$

7. $\frac{1}{10}$ ◯ $\frac{1}{11}$

8. $\frac{1}{11}$ ◯ $\frac{1}{8}$

9. $\frac{1}{12}$ ◯ $\frac{1}{10}$

10. $\frac{1}{12}$ ◯ $\frac{1}{9}$

11. $\frac{4}{5}$ ◯ $\frac{2}{5}$

12. $\frac{6}{12}$ ◯ $\frac{10}{12}$

Put them in order Smallest first.

$\frac{1}{4}$ $\frac{1}{12}$ $\frac{1}{8}$ $\frac{1}{3}$ → ☐ ☐ ☐ ☐

$\frac{2}{9}$ $\frac{1}{9}$ $\frac{3}{9}$ $\frac{5}{9}$ → ☐ ☐ ☐ ☐

$\frac{1}{10}$ $\frac{1}{2}$ $\frac{1}{6}$ $\frac{1}{5}$ → ☐ ☐ ☐ ☐

$\frac{2}{11}$ $\frac{9}{11}$ $\frac{3}{11}$ $\frac{10}{11}$ → ☐ ☐ ☐ ☐

ANSWERS · FRACTIONS · AGES 7–9

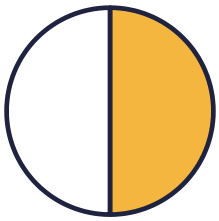
Shade the fraction

Acorn & Ink

Answers are shown in red.

Name _____ Date _____

Colour $\frac{1}{2}$



What fraction is coloured?



$\frac{4}{8}$

Colour $\frac{1}{3}$

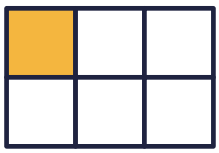


What fraction is coloured?



$\frac{4}{6}$

Colour $\frac{1}{6}$

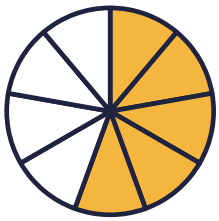


What fraction is coloured?



$\frac{3}{4}$

Colour $\frac{5}{9}$



What fraction is coloured?



$\frac{4}{10}$

Colour $\frac{1}{4}$



What fraction is coloured?

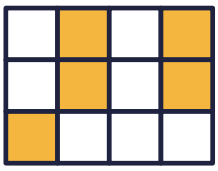


$\frac{2}{6}$

Colour $\frac{2}{4}$



What fraction is coloured?



$\frac{5}{12}$

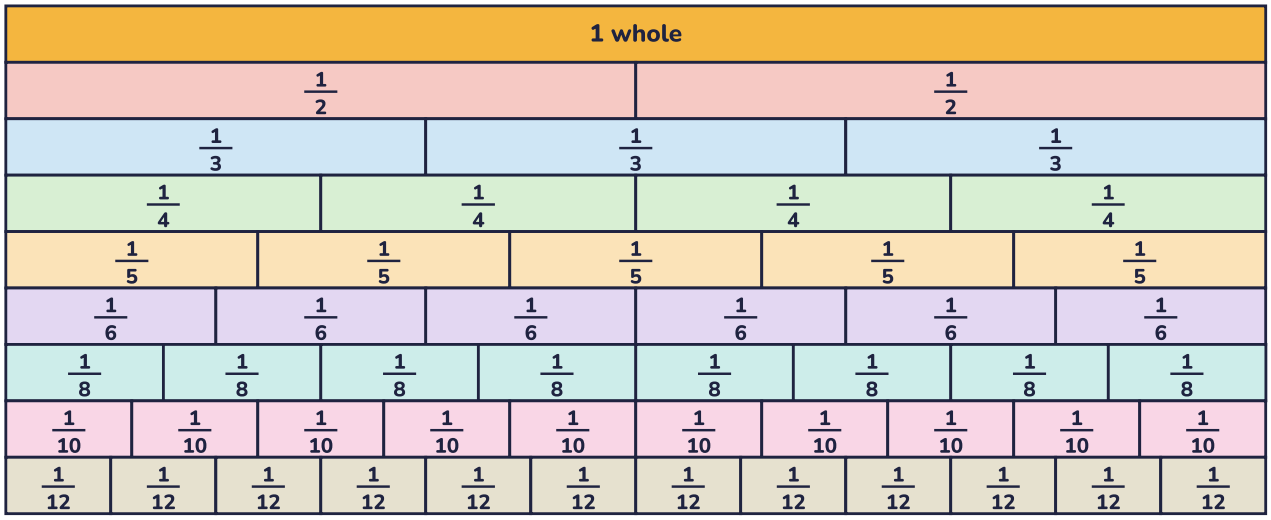
Count all the equal parts for the bottom number. Count the coloured parts for the top number.

Equivalent fractions

Acorn & Ink

Answers are shown in red.

Name _____ Date _____



1. $\frac{4}{10} = \frac{\boxed{2}}{5}$

2. $\frac{6}{10} = \frac{\boxed{3}}{5}$

3. $\frac{10}{12} = \frac{\boxed{5}}{6}$

4. $\frac{4}{8} = \frac{1}{\boxed{2}}$

5. $\frac{1}{2} = \frac{\boxed{6}}{12}$

6. $\frac{4}{6} = \frac{\boxed{8}}{12}$

7. $\frac{6}{12} = \frac{\boxed{2}}{4}$

8. $\frac{2}{6} = \frac{4}{\boxed{12}}$

9. $\frac{5}{10} = \frac{\boxed{4}}{8}$

10. $\frac{4}{5} = \frac{\boxed{8}}{10}$

11. $\frac{2}{3} = \frac{\boxed{4}}{6}$

12. $\frac{3}{6} = \frac{4}{\boxed{8}}$

Acorn & Ink

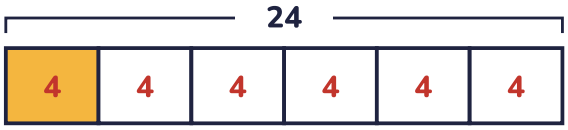
Fractions of amounts

Answers are shown in red.

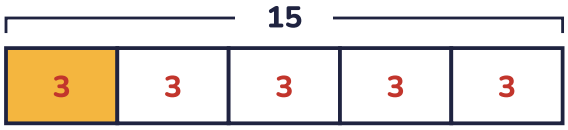
Name _____ Date _____

Use the bar to help Write how much each part is worth.

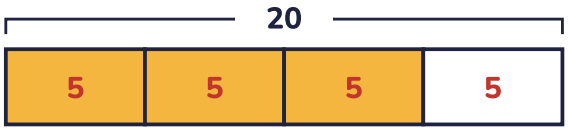
$\frac{1}{6}$ of 24 = **4**



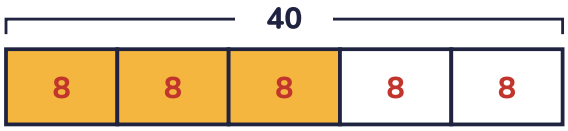
$\frac{1}{5}$ of 15 = **3**



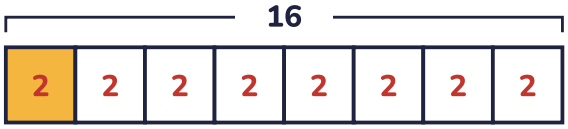
$\frac{3}{4}$ of 20 = **15**



$\frac{3}{5}$ of 40 = **24**



$\frac{1}{8}$ of 16 = **2**



$\frac{1}{3}$ of 15 = **5**



Now try these Divide by the bottom, times by the top.

1. $\frac{1}{3}$ of 6 = **2**
2. $\frac{1}{3}$ of 33 = **11**
3. $\frac{1}{8}$ of 72 = **9**
4. $\frac{1}{8}$ of 32 = **4**
5. $\frac{2}{3}$ of 12 = **8**
6. $\frac{1}{4}$ of 40 = **10**
7. $\frac{1}{2}$ of 22 = **11**
8. $\frac{1}{4}$ of 8 = **2**
9. $\frac{1}{6}$ of 30 = **5**
10. $\frac{1}{10}$ of 110 = **11**

ANSWERS · FRACTIONS · AGES 7–9

Add and subtract fractions

Acorn & Ink

Answers are shown in red.

Name _____ Date _____

1. $\frac{4}{11} + \frac{2}{11} = \frac{6}{11}$



2. $\frac{3}{10} + \frac{6}{10} = \frac{9}{10}$



3. $\frac{3}{10} - \frac{1}{10} = \frac{2}{10}$



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



5. $\frac{1}{10} + \frac{4}{10} = \frac{5}{10}$



6. $\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$



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



8. $\frac{1}{6} + \frac{4}{6} = \frac{5}{6}$



9. $\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$



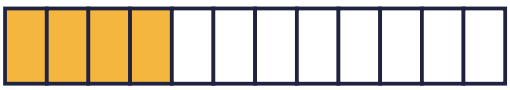
10. $\frac{7}{12} + \frac{4}{12} = \frac{11}{12}$



11. $\frac{4}{6} + \frac{1}{6} = \frac{5}{6}$



12. $\frac{3}{12} + \frac{1}{12} = \frac{4}{12}$



The bottom number stays the same. Add or take away the top numbers. Colour the bar to check.

Acorn & Ink

Compare and order

Answers are shown in red.

Name _____ Date _____

Bigger or smaller? Write <, > or = in each circle.

1. $\frac{1}{2}$ **>** $\frac{1}{3}$
2. $\frac{6}{8}$ **>** $\frac{2}{8}$
3. $\frac{3}{10}$ **>** $\frac{2}{10}$
4. $\frac{1}{11}$ **>** $\frac{1}{12}$
5. $\frac{2}{7}$ **<** $\frac{5}{7}$
6. $\frac{4}{10}$ **>** $\frac{2}{10}$
7. $\frac{1}{10}$ **>** $\frac{1}{11}$
8. $\frac{1}{11}$ **<** $\frac{1}{8}$
9. $\frac{1}{12}$ **<** $\frac{1}{10}$
10. $\frac{1}{12}$ **<** $\frac{1}{9}$
11. $\frac{4}{5}$ **>** $\frac{2}{5}$
12. $\frac{6}{12}$ **<** $\frac{10}{12}$

Put them in order Smallest first.

$\frac{1}{4}$ $\frac{1}{12}$ $\frac{1}{8}$ $\frac{1}{3}$ → **$\frac{1}{12}$** **$\frac{1}{8}$** **$\frac{1}{4}$** **$\frac{1}{3}$**

$\frac{2}{9}$ $\frac{1}{9}$ $\frac{3}{9}$ $\frac{5}{9}$ → **$\frac{1}{9}$** **$\frac{2}{9}$** **$\frac{3}{9}$** **$\frac{5}{9}$**

$\frac{1}{10}$ $\frac{1}{2}$ $\frac{1}{6}$ $\frac{1}{5}$ → **$\frac{1}{10}$** **$\frac{1}{6}$** **$\frac{1}{5}$** **$\frac{1}{2}$**

$\frac{2}{11}$ $\frac{9}{11}$ $\frac{3}{11}$ $\frac{10}{11}$ → **$\frac{2}{11}$** **$\frac{3}{11}$** **$\frac{9}{11}$** **$\frac{10}{11}$**