

Reasoning and Problem Solving

Step 4: Fractions Greater Than 1

National Curriculum Objectives:

Mathematics Year 4: (4F2) [Recognise and show, using diagrams, families of common equivalent fractions](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Using three digit cards and the denominator, create improper fractions and identify a fraction that is more than one whole.

Expected Using four digit cards, create improper fractions and identify all the fractions more than a whole.

Greater Depth Using four digit cards, create improper fractions and identify any equivalent fractions.

Questions 2, 5 and 8 (Problem Solving)

Developing Place improper fractions including halves, quarters and thirds on a number line, always starting from zero, where all increments are shown.

Expected Place improper fractions up to twelfths on a number line, sometimes starting from zero, where all increments are shown.

Greater Depth Place equivalent fractions on a number line sometimes starting from zero, where all increments are shown.

Questions 3, 6 and 9 (Reasoning)

Developing Explain who is correct when comparing mixed and improper fractions including halves, quarters and thirds; using pictorial support.

Expected Explain who is correct when comparing mixed and improper fractions up to twelfths; using pictorial support.

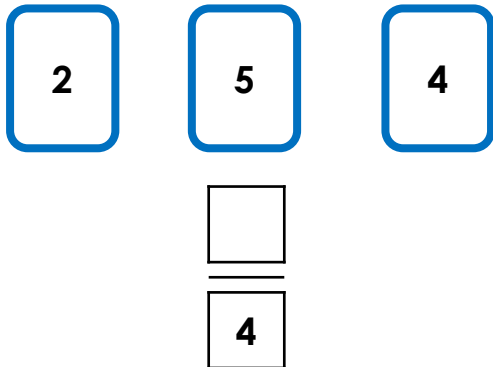
Greater Depth Explain who is correct when comparing equivalent fractions up to twelfths; using pictorial support.

More [Year 4 Fractions](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Fractions Greater Than 1

1a. Make as many fractions as you can using the following number cards.



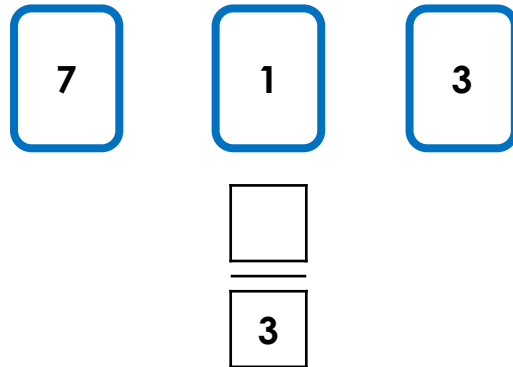
Which fractions are more than a whole?



PS

Fractions Greater Than 1

1b. Make as many fractions as you can using the following number cards.



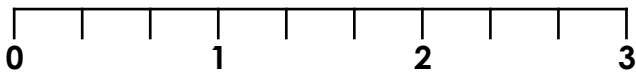
Which fractions are more than a whole?



PS

2a. Place the following fractions in their correct place on the number line.

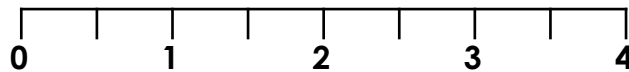
$$\frac{7}{3} \quad \frac{2}{3} \quad \frac{5}{3} \quad \frac{4}{3}$$



PS

2b. Place the following fractions in their correct place on the number line.

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



PS

3a. Simon and Daria are discussing this image:



Simon

It is two wholes and one half.

It is three wholes and one half.



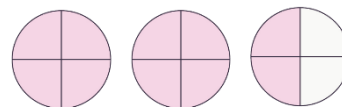
Daria

Who is correct? Convince me.



R

3b. Sheldon and Isra are discussing this image:



Sheldon

It is ten quarters.

It is two wholes and two quarters.



Isra

Who is correct? Convince me.

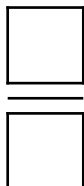
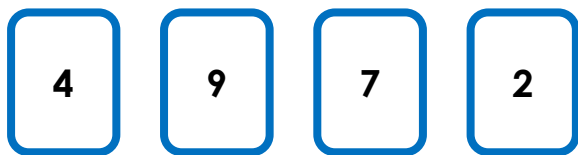


R

Fractions Greater Than 1

Fractions Greater Than 1

4a. Make as many fractions as you can using the following number cards.

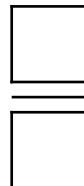
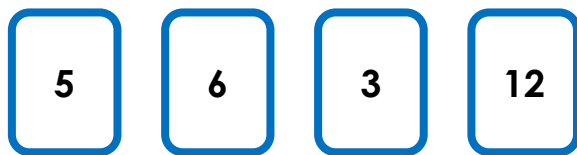


Which fractions are more than a whole?



PS

4b. Make as many fractions as you can using the following number cards.



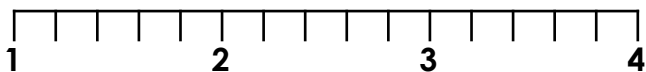
Which fractions are more than a whole?



PS

5a. Place the following fractions in their correct place on the number line.

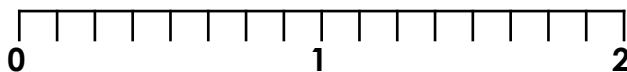
$$\frac{7}{5} \quad \frac{18}{5} \quad \frac{13}{5} \quad \frac{9}{5}$$



PS

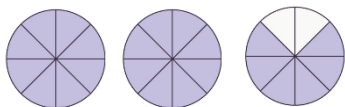
5b. Place the following fractions in their correct place on the number line.

$$\frac{15}{8} \quad \frac{10}{8} \quad \frac{4}{8} \quad \frac{7}{8}$$



PS

6a. Daisy and Ahmed are discussing this image:



Daisy

It is two wholes and five eighths.

It is twenty-two eighths.



Ahmed

Who is correct? Convince me.



R

6b. Kara and George are discussing this image:



Kara

It is eighteen sixths.

It is three wholes and two sixths.



George

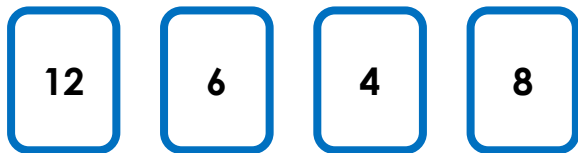
Who is correct? Convince me.



R

Fractions Greater Than 1

7a. Make as many fractions as you can using the following number cards.



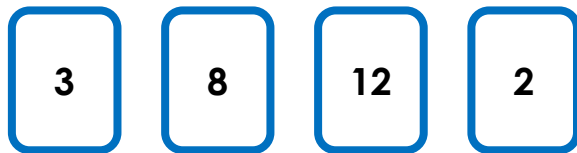
Which fractions are equivalent?



PS

Fractions Greater Than 1

7b. Make as many fractions as you can using the following number cards.



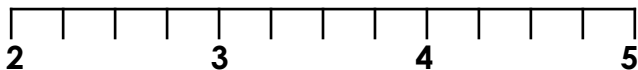
Which fractions are equivalent?



PS

8a. Place the following fractions in their correct place on the number line.

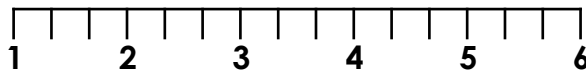
$$\frac{30}{8} \quad \frac{13}{4} \quad \frac{18}{4} \quad \frac{18}{8}$$



PS

8b. Place the following fractions in their correct place on the number line.

$$\frac{16}{3} \quad \frac{26}{6} \quad \frac{8}{3} \quad \frac{8}{6}$$



PS

9a. Emily and Jacob are discussing this image:



It is twenty-eight twelfths.

Emily

It is fourteen sixths.



Jacob

Who is correct? Convince me.



R

9b. Clement and Sasha are discussing this image:



It is twenty-four tenths.

Clement

It is two wholes and one half.



Sasha

Who is correct? Convince me.



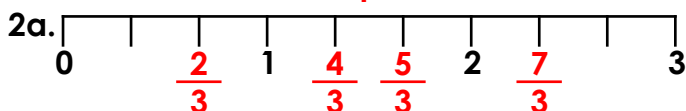
R

Reasoning and Problem Solving Fractions Greater Than 1

Developing

1a. $\frac{2}{4}$, $\frac{5}{4}$ or $\frac{4}{4}$.

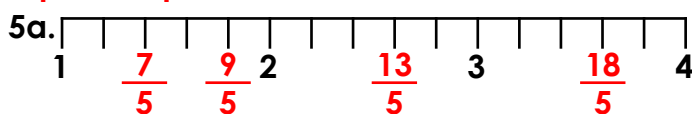
More than a whole is $\frac{5}{4}$.



3a. Simon is correct because there are two whole shapes shaded and one half of the third shape.

Expected

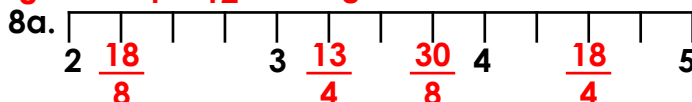
4a. $\frac{4}{9}$, $\frac{7}{9}$, $\frac{2}{9}$, $\frac{4}{7}$, $\frac{9}{7}$, $\frac{2}{7}$, $\frac{4}{2}$, $\frac{9}{2}$, $\frac{7}{2}$, $\frac{9}{4}$, $\frac{7}{4}$, $\frac{2}{4}$, $\frac{9}{4}$.
More than a whole: $\frac{9}{7}$, $\frac{4}{2}$, $\frac{9}{2}$, $\frac{7}{2}$, $\frac{9}{4}$ and $\frac{7}{4}$.



6a. Ahmed is correct because the fraction shown is two wholes and six eighths which is equivalent to twenty-two eighths.

Greater Depth

7a. $\frac{12}{6}$, $\frac{4}{6}$, $\frac{8}{6}$, $\frac{8}{4}$, $\frac{12}{4}$, $\frac{6}{4}$, $\frac{12}{8}$, $\frac{6}{8}$, $\frac{4}{8}$, $\frac{6}{12}$, $\frac{4}{12}$, $\frac{8}{12}$.
The equivalent fractions are: $\frac{12}{6}$ and $\frac{8}{4}$; $\frac{12}{8}$ and $\frac{6}{4}$; $\frac{6}{12}$ and $\frac{4}{8}$.



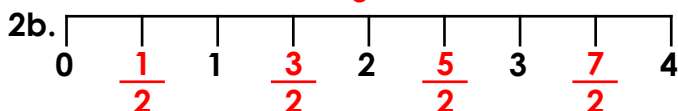
9a. Emily and Jacob are both correct because the fraction shown is fourteen sixths which is equivalent to twenty-eight twelfths.

Reasoning and Problem Solving Fractions Greater Than 1

Developing

1b. $\frac{7}{3}$, $\frac{1}{3}$ or $\frac{3}{3}$.

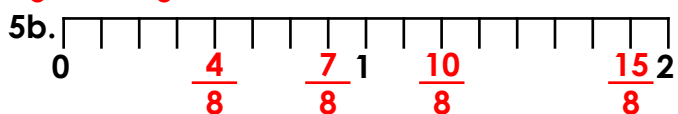
More than a whole is $\frac{7}{3}$.



3b. Sheldon and Isra are both correct because ten quarters is equivalent to two wholes and two quarters.

Expected

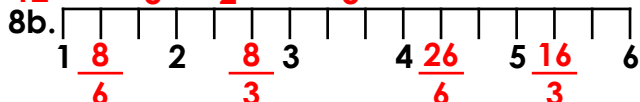
4b. $\frac{5}{6}$, $\frac{3}{6}$, $\frac{12}{6}$, $\frac{12}{3}$, $\frac{5}{3}$, $\frac{6}{3}$, $\frac{5}{12}$, $\frac{6}{12}$, $\frac{3}{12}$, $\frac{6}{5}$, $\frac{3}{5}$, $\frac{12}{5}$.
More than a whole: $\frac{12}{6}$, $\frac{12}{3}$, $\frac{5}{3}$, $\frac{6}{3}$, $\frac{6}{5}$ and $\frac{12}{5}$.



6b. George is correct because there are three whole shapes shaded and two sixths of the third shape.

Greater Depth

7b. $\frac{3}{8}$, $\frac{12}{8}$, $\frac{2}{8}$, $\frac{2}{12}$, $\frac{3}{12}$, $\frac{8}{12}$, $\frac{3}{2}$, $\frac{8}{2}$, $\frac{12}{2}$, $\frac{8}{3}$, $\frac{12}{3}$, $\frac{2}{3}$.
The equivalent fractions are: $\frac{2}{8}$ and $\frac{3}{12}$; $\frac{8}{12}$ and $\frac{2}{3}$; $\frac{8}{2}$ and $\frac{12}{3}$.



9b. Clement is correct because the fraction shown is twelve fifths which is equivalent to twenty-four tenths.