

Tuesday 12th May - Lesson 2 - Compare and order fractions

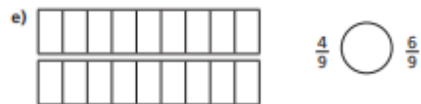
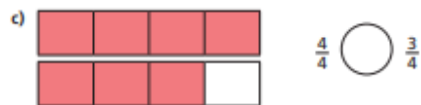
Compare and order fractions Video: <https://whiterosemaths.com/homelearning/year-6/> Use **Summer Term - Week 3 (w/c 4th May)**

Compare and order (denominator)

White
Rose
Maths

1 Write <, > or = to compare the fractions.

Use the bar models to help you.



f) What do you notice about your answers?

g) Complete the sentence.

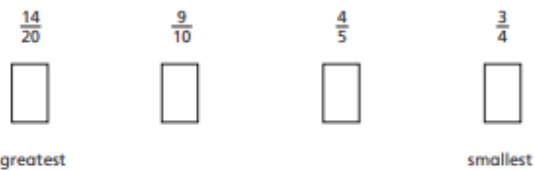
When the denominators are the same, the _____

the numerator, the _____ the fraction.

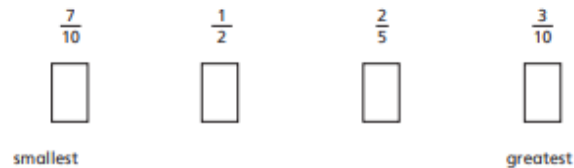
2 a) Colour the bar models to show the fractions.



b) Use the bar models to sort these fractions in order from greatest to smallest.



c) Order the fractions from smallest to greatest.



- 3 Amir is comparing the fractions $\frac{4}{15}$ and $\frac{3}{10}$

$$\frac{4}{15} = \frac{8}{30} \quad \frac{3}{10} = \frac{9}{30}$$

$\frac{9}{30}$ is greater than $\frac{8}{30}$

$\frac{3}{10}$ is greater than $\frac{4}{15}$

Explain Amir's method.

- 4 Ron and Rosie are practising penalties.

Ron scored 7 out of 10.

Rosie scored 23 out of 30



I did not miss as many as you, so I should take the penalties.

I scored more than you, so I should take penalties for the school team.



Compare fractions to explain who should take penalties for the school team.

- 5 Write $<$, $>$ or $=$ to compare the fractions.

a) $\frac{3}{4}$ ○ $\frac{5}{6}$

d) $\frac{3}{5}$ ○ $\frac{5}{7}$

b) $\frac{2}{3}$ ○ $\frac{5}{9}$

e) $\frac{9}{10}$ ○ $\frac{3}{4}$

c) $\frac{2}{3}$ ○ $\frac{7}{8}$

f) $\frac{9}{10}$ ○ $\frac{19}{20}$

- 6 Annie, Tommy and Kim are making flags for the school fair.

Annie has completed $3\frac{3}{4}$ flags, Tommy has completed $3\frac{2}{3}$ flags and Kim has completed $\frac{18}{5}$ flags.

Who has completed the most flags?

Compare and order (numerator)

- 1 Use strips of paper to represent the fractions and complete the sentences.

a) $\frac{1}{3}$, $\frac{1}{5}$ and $\frac{1}{6}$

The smallest fraction is The greatest fraction is

b) $\frac{2}{3}$, $\frac{2}{5}$ and $\frac{2}{6}$

The smallest fraction is The greatest fraction is

c) $\frac{3}{3}$, $\frac{3}{5}$ and $\frac{3}{6}$

The smallest fraction is The greatest fraction is

- d) What do you notice about your answers?

- e) Complete the sentence.

When the _____ are the same, the _____
the denominator, the _____ the fraction.



- 2 a) Colour the bar models to compare $\frac{3}{4}$ and $\frac{6}{10}$



- b) Write <, > or = to complete the statement.



- 3 Which is the greatest fraction? Circle your answer.

$$\frac{3}{100}$$

$$\frac{3}{1000}$$

$$\frac{3}{500}$$

How do you know?

- 4 Write < or > to compare the fractions.

a) $\frac{1}{7}$ ○ $\frac{1}{9}$

d) $\frac{11}{12}$ ○ $\frac{11}{11}$

b) $\frac{4}{5}$ ○ $\frac{4}{7}$

e) $\frac{19}{5}$ ○ $\frac{19}{6}$

c) $\frac{3}{13}$ ○ $\frac{3}{8}$

f) $\frac{107}{53}$ ○ $\frac{107}{40}$



- 5 Explain how you can compare $\frac{2}{3}$ and $\frac{4}{5}$ using the same numerator rule.

Complete the sentence to compare $\frac{2}{3}$ and $\frac{4}{5}$

is greater than

- 6 Scott scored 20 out of 24 in a game.
Dani scored 5 out of 7
Compare their scores.
Explain who you think did best and why.



- 7 Write $<$, $>$ or $=$ to complete each statement.

a) $\frac{2}{5} \bigcirc 1\frac{1}{3}$ b) $\frac{2}{5} \bigcirc \frac{6}{11}$ c) $3\frac{2}{3} \bigcirc \frac{11}{4}$

$1\frac{2}{5} \bigcirc \frac{1}{3}$ $1\frac{2}{5} \bigcirc 3\frac{6}{11}$ $11\frac{2}{9} \bigcirc \frac{101}{3}$

$1\frac{2}{5} \bigcirc 1\frac{1}{3}$ $3\frac{2}{5} \bigcirc 3\frac{6}{11}$ $11\frac{1}{9} \bigcirc \frac{100}{8}$

$\frac{12}{5} \bigcirc \frac{12}{3}$ $\frac{12}{5} \bigcirc \frac{36}{11}$ $27\frac{3}{4} \bigcirc \frac{111}{3}$

- 8 Explain how you know when it is best to compare the numerators or denominators of two fractions.



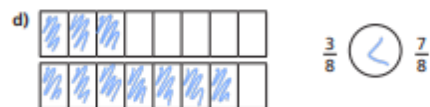
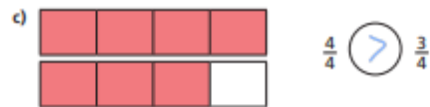
Answers

Compare and order (denominator)



1 Write $<$, $>$ or $=$ to compare the fractions.

Use the bar models to help you.



f) What do you notice about your answers?

g) Complete the sentence.

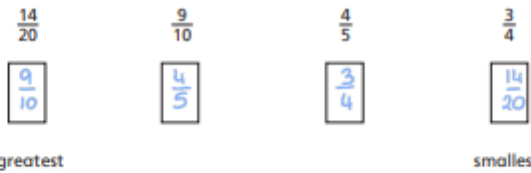
When the denominators are the same, the greater the numerator, the greater the fraction. (or smaller/smaller)



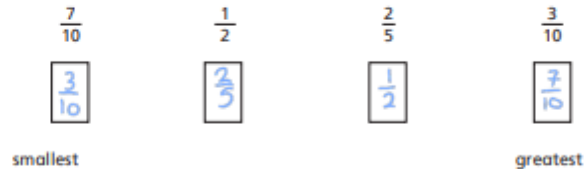
2 a) Colour the bar models to show the fractions.



b) Use the bar models to sort these fractions in order from greatest to smallest.



c) Order the fractions from smallest to greatest.



- 3 Amir is comparing the fractions $\frac{4}{15}$ and $\frac{3}{10}$

$$\frac{4}{15} = \frac{8}{30} \quad \frac{3}{10} = \frac{9}{30}$$
$$\frac{9}{30} \text{ is greater than } \frac{8}{30}$$
$$\frac{3}{10} \text{ is greater than } \frac{4}{15}$$

Explain Amir's method.

Amir used equivalent fractions to find a common denominator and then compared the numerators.

- 4 Ron and Rosie are practising penalties.

Ron scored 7 out of 10.

Rosie scored 23 out of 30



I did not miss as many as you, so I should take the penalties.

I scored more than you, so I should take penalties for the school team.



Compare fractions to explain who should take penalties for the school team.

$$\frac{7}{10} = \frac{21}{30} \quad \frac{23}{30} > \frac{21}{30} \quad \text{Rosie should take}$$

penalties for the school team.

- 5 Write $<$, $>$ or $=$ to compare the fractions.

a) $\frac{3}{4} < \frac{5}{6}$

d) $\frac{3}{5} < \frac{5}{7}$

b) $\frac{2}{3} > \frac{5}{9}$

e) $\frac{9}{10} > \frac{3}{4}$

c) $\frac{2}{3} < \frac{7}{8}$

f) $\frac{9}{10} < \frac{19}{20}$

- 6 Annie, Tommy and Kim are making flags for the school fair.

Annie has completed $3\frac{3}{4}$ flags, Tommy has completed $3\frac{2}{3}$ flags and Kim has completed $\frac{18}{5}$ flags.

Who has completed the most flags?

$$\frac{18}{5} = 3\frac{3}{5} \quad \frac{3}{4} > \frac{2}{3} > \frac{3}{5}$$

Annie has completed the most flags

Compare and order (numerator)

- 1 Use strips of paper to represent the fractions and complete the sentences.

a) $\frac{1}{3}$, $\frac{1}{5}$ and $\frac{1}{6}$

The smallest fraction is $\frac{1}{6}$ The greatest fraction is $\frac{1}{3}$

b) $\frac{2}{3}$, $\frac{2}{5}$ and $\frac{2}{6}$

The smallest fraction is $\frac{2}{6}$ The greatest fraction is $\frac{2}{3}$

c) $\frac{3}{3}$, $\frac{3}{5}$ and $\frac{3}{6}$

The smallest fraction is $\frac{3}{6}$ The greatest fraction is $\frac{3}{3}$

- d) What do you notice about your answers?

- e) Complete the sentence.

When the numerators are the same, the greater
the denominator, the smaller the fraction. (or smaller/greater)



- 2 a) Colour the bar models to compare $\frac{3}{4}$ and $\frac{6}{10}$



- b) Write $<$, $>$ or $=$ to complete the statement.

$\frac{3}{4} > \frac{6}{10}$ or $\frac{6}{10} < \frac{3}{4}$

- 3 Which is the greatest fraction? Circle your answer.

$\frac{3}{100}$ $\frac{3}{1,000}$ $\frac{3}{500}$

How do you know?

- 4 Write $<$ or $>$ to compare the fractions.

a) $\frac{1}{7} > \frac{1}{9}$ d) $\frac{11}{12} < \frac{11}{11}$

b) $\frac{4}{5} > \frac{4}{7}$ e) $\frac{19}{5} > \frac{19}{6}$

c) $\frac{3}{13} < \frac{3}{8}$ f) $\frac{107}{53} < \frac{107}{40}$



- 5 Explain how can you compare $\frac{2}{3}$ and $\frac{4}{5}$ using the same numerator rule.

$$\frac{2}{3} = \frac{4}{6} \quad \frac{4}{6} < \frac{4}{5} \quad \text{so} \quad \frac{2}{3} < \frac{4}{5}$$

Complete the sentence to compare $\frac{2}{3}$ and $\frac{4}{5}$

$\frac{4}{5}$ is greater than $\frac{2}{3}$

- 6 Scott scored 20 out of 24 in a game.

Dani scored 5 out of 7

Compare their scores.

Explain who you think did best and why.

$$\text{Scott: } \frac{20}{24} = \frac{5}{6} \quad \frac{5}{6} > \frac{5}{7} \quad \text{so Scott did better.}$$

$$\text{Dani: } \frac{5}{7}$$



- 7 Write $<$, $>$ or $=$ to complete each statement.

a) $\frac{2}{5} < 1\frac{1}{3}$ b) $\frac{2}{5} < \frac{6}{11}$ c) $3\frac{2}{3} > \frac{11}{4}$

$1\frac{2}{5} > \frac{1}{3}$ $1\frac{2}{5} < 3\frac{6}{11}$ $11\frac{2}{9} < \frac{101}{3}$

$1\frac{2}{5} > 1\frac{1}{3}$ $3\frac{2}{5} < 3\frac{6}{11}$ $11\frac{1}{9} < \frac{100}{8}$

$\frac{12}{5} < \frac{12}{3}$ $\frac{12}{5} < \frac{36}{11}$ $27\frac{3}{4} < \frac{111}{3}$

- 8 Explain how you know when it is best to compare the numerators or denominators of two fractions.

When the lowest common multiple of either the numerators or denominators is easier to find.

