

RECALL

Here are four fraction cards.

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

$$\frac{5}{8}$$

$$\frac{6}{12}$$

$$\frac{7}{16}$$

Use any **three** of the cards to make this correct.

$$\square < \square < \square$$

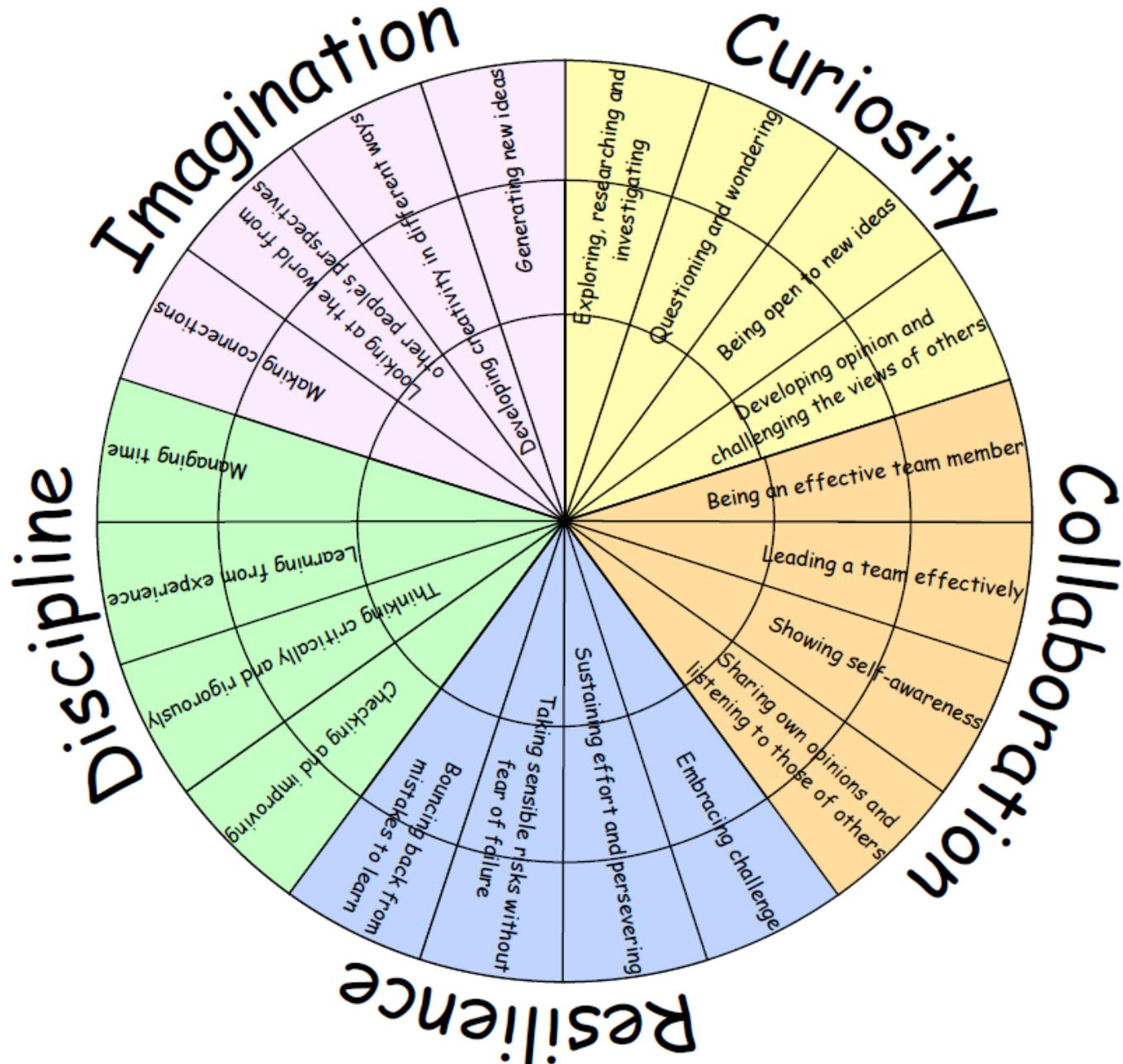


Draw a diagram to prove this!

I CAN COMPARE AND ORDER
ANY SET OF FRACTIONS,
PROPER OR IMPROPER, OR
MIXED NUMBERS INCLUDING
THOSE WITH DIFFERENT
DENOMINATORS

Fractions (12v)

LEARNING HABITS?



GUIDED PRACTICE

Mr Newton and Mr Hall were having a discussion about who has the bigger slice of pie.

Mr Newton has $\frac{8}{20}$

Mr Hall has $\frac{2}{5}$

Mr Newton says that, 'I'm going to make the numerators the same to find out who has the bigger slice.'

Mr Hall says that, 'I'm going to make the denominators the same to find out who has the bigger slice.'

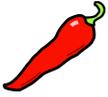
- 1) Who has the bigger slice of pie?
- 2) Whose method do you think is correct?



Mr Diamond and Mr G think that both methods are correct?

Prove it!

INTELLIGENT PRACTICE



Compare these fractions.

$$1/5 \quad \underline{\hspace{1cm}} \quad 3/5$$

$$5/7 \quad \underline{\hspace{1cm}} \quad 4/7$$

$$3/8 \quad \underline{\hspace{1cm}} \quad 7/8$$

When the denominators
are the same, the
 the
numerator, the
 the fraction

Compare these fractions.

$$1/4 \quad \underline{\hspace{1cm}} \quad 1/2$$

$$2/3 \quad \underline{\hspace{1cm}} \quad 2/5$$

$$3/5 \quad \underline{\hspace{1cm}} \quad 3/6$$

When the are
the same, the
 the
denominator, the
 the fraction

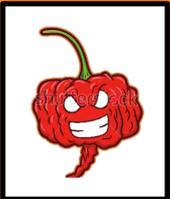
Compare these
fractions.

$$1/2 \quad \underline{\hspace{1cm}} \quad 3/4$$

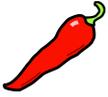
$$2/5 \quad \underline{\hspace{1cm}} \quad 3/10$$

$$6/7 \quad \underline{\hspace{1cm}} \quad 2/11$$

$$8/14 \quad \underline{\hspace{1cm}} \quad 2/3$$



INTELLIGENT PRACTICE ANSWERS



Compare these fractions.

$$1/5 < 3/5$$

$$5/7 > 4/7$$

$$3/8 < 7/8$$

When the denominators are the same, the **greater / smaller** the numerator, the **greater / smaller** the fraction



Compare these fractions.

$$1/4 < 1/2$$

$$2/3 > 2/5$$

$$3/5 > 3/6$$

When the **numerators** are the same, the **greater / smaller** the denominator, the **smaller / greater** the fraction



Compare these fractions.

$$1/2 < 3/4 = 2/4 < 3/4$$

$$2/5 > 3/10 = 4/10 > 3/10$$

$$6/7 > 2/11 = 6/7 > 6/33$$

$$8/14 < 2/3 = 8/14 < 8/12$$



DIVE DEEPER 1

1a) 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.

$$\frac{7}{10}$$

$$\frac{1}{2}$$

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

$$\frac{3}{10}$$

DIVE DEEPER 1 ANSWERS

1a) Colour the bar models to show the fractions.



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

$$\frac{9}{10} > \frac{4}{5} > \frac{3}{4} > \frac{14}{20}$$

c) Order the fractions from smallest to greatest.

$$\frac{7}{10}$$

$$\frac{1}{2}$$

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

$$\frac{3}{10}$$

$$\frac{3}{10}$$

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

$$\frac{1}{2}$$

$$\frac{7}{10}$$

DIVE DEEPER 2

2) 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.

3) Ron and Rosie are practising penalties.

Ron Scored 7 out of 10.

Rosie scored 23 out of 30.

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

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

Compare the fractions to find who should take the penalties.

DIVE DEEPER 2 ANSWERS

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

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

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

3) Ron and Rosie are practising penalties.

Ron Scored 7 out of 10. $\frac{7}{10}$

Rosie scored 23 out of 30. $\frac{23}{30}$

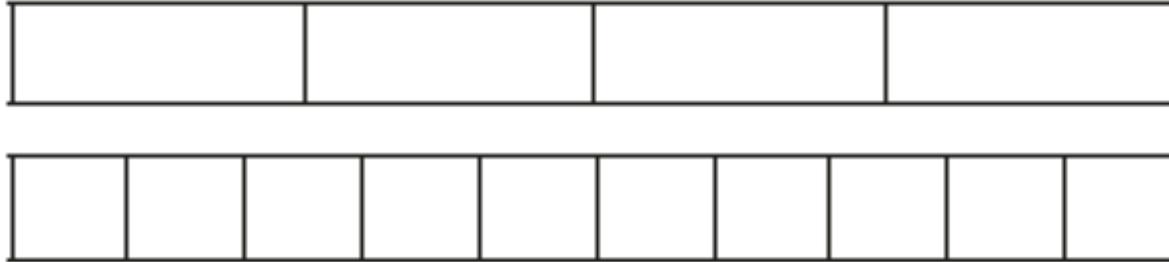
Rosie: I scored more than you, so I should take penalties for the school team.

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

$\frac{7}{10} = \frac{21}{30}$ $\frac{23}{30} > \frac{21}{30}$ Rosie should take the penalties

DIVE DEEPER 3

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



b) Using $<$, $>$ or $=$ write a mathematical statement

5) Which is the greatest fraction?

$\frac{3}{100}$

$\frac{3}{1000}$

$\frac{3}{500}$

How do you know?

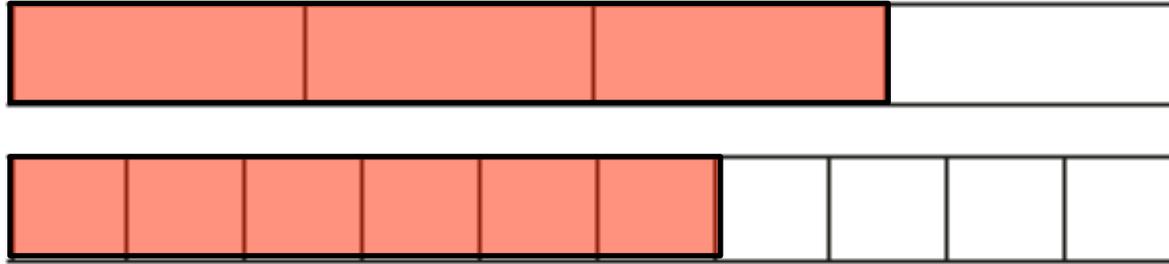
6a) Explain how you could compare $\frac{2}{3}$ and $\frac{4}{5}$ by using the same numerator.

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

___ is greater than ___.

DIVE DEEPER 3 ANSWERS

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



b) Using $<$, $>$ or $=$ write a mathematical statement. $\frac{3}{4} > \frac{6}{10}$

5) Which is the greatest fraction?

$\frac{3}{100}$

$\frac{3}{1000}$

$\frac{3}{500}$

How do you know? When the numerators are the same the smaller the denominator the greater the fraction.

6a) Explain how you could compare $\frac{2}{3}$ and $\frac{4}{5}$ by using the same numerator.

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

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

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

DIVE DEEPER 4

7) 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.

8a) Write $<$, $>$ or $=$ to complete each statement.

$$\frac{2}{5} \text{ ____ } 1 \frac{1}{3}$$

$$1 \frac{2}{5} \text{ ____ } \frac{1}{3}$$

$$1 \frac{2}{5} \text{ ____ } 1 \frac{1}{3}$$

$$\frac{12}{5} \text{ ____ } \frac{12}{3}$$

b) Explain how you compared each set of fractions.

DIVE DEEPER 4 ANSWERS

7) Scott scored 20 out of 24 in a game.

Dani scored 5 out of 7.

Compare their scores.

Scott: $20/24 = 5/6$

$5/6 > 5/7$ so Scott did better than Dani

8a) Write $<$, $>$ or $=$ to complete each statement.

$2/5 < 1\ 1/3$ One of the fractions has a whole

$1\ 2/5 > 1/3$ One of the fractions has a whole

$1\ 2/5 > 1\ 1/3$ Made the numerators the same

$12/5 < 12/3$ The numerators are the same

b) Explain how you compared each set of fractions.