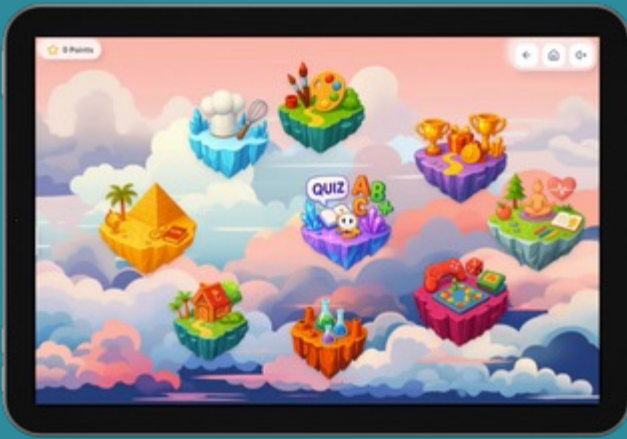


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Comparing and Ordering Fractions - Year 5

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FOUR WAYS TO COMPARE FRACTIONS

1

SAME DENOMINATOR



The fraction with the greater numerator is greater.

$$\frac{5}{8} > \frac{3}{8}$$

2

SAME NUMERATOR



The fraction with the smaller denominator is greater.

$$\frac{3}{5} > \frac{3}{8}$$

3

UNLIKE DENOMINATORS



Rename both fractions using a common denominator.

$$\frac{2}{3} = \frac{10}{15} \quad \frac{3}{5} = \frac{9}{15}$$

so $\frac{2}{3} > \frac{3}{5}$

4

NUMBER LINE

The fraction farther to the right is greater.



COMPARING & ORDERING FRACTIONS

1

CHECK THE DENOMINATORS

Same denominator? The greater numerator makes the greater fraction.

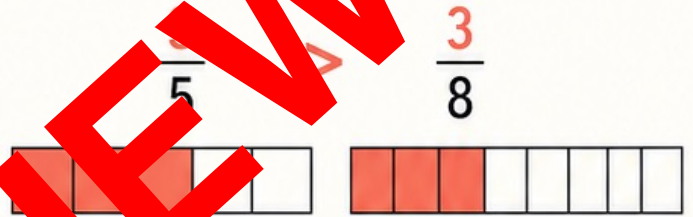
$$\frac{5}{8} > \frac{3}{8}$$



2

CHECK THE NUMERATORS

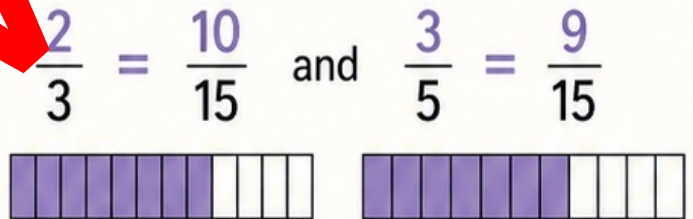
Same numerator? The smaller denominator makes the greater fraction.



3

RENAME THE FRACTIONS

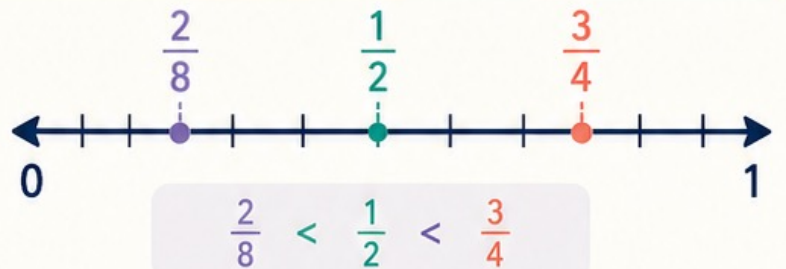
If both are different, use equivalent fractions with a common denominator.



4

USE A NUMBER LINE

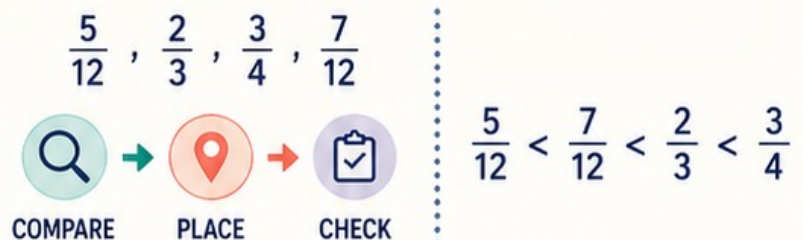
Farther right means greater.



5

ORDER ONE STEP AT A TIME

Compare, place, then check from least to greatest.



< means
less than



> means
greater than

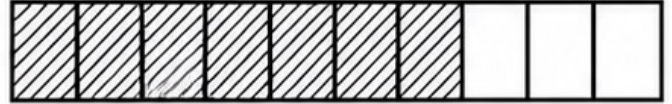


= means
equal to

WORKSHEET 1: SAME DENOMINATORS

Name: _____

Date: _____



Write $<$, $>$ or $=$ in each circle.

1. $\frac{3}{8}$ ○ $\frac{5}{8}$

2. $\frac{7}{10}$ ○ $\frac{2}{10}$

3. $\frac{4}{9}$ ○ $\frac{4}{9}$

4. $\frac{1}{6}$ ○ $\frac{5}{6}$

5. $\frac{11}{12}$ ○ $\frac{7}{12}$

6. $\frac{2}{5}$ ○ $\frac{4}{5}$

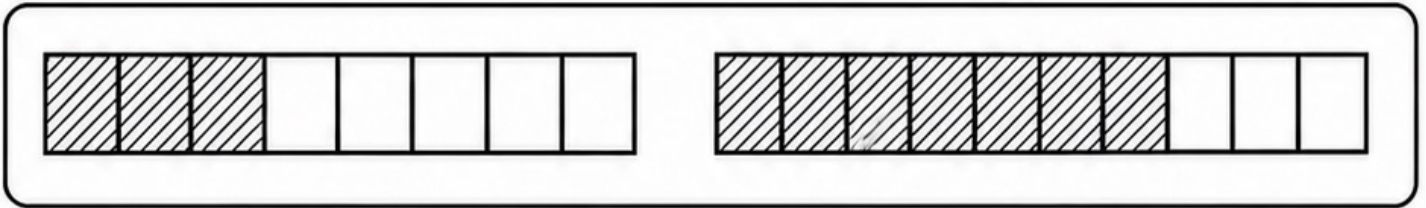
7. $\frac{6}{7}$ ○ $\frac{1}{7}$

8. $\frac{3}{4}$ ○ $\frac{2}{4}$

WORKSHEET 1: SAME DENOMINATORS

ANSWERS _____

Date: _____



Write $<$, $>$ or $=$ in each circle.

1. $\frac{3}{8}$ $<$ $\frac{5}{8}$

2. $\frac{7}{10}$ $>$ $\frac{2}{10}$

3. $\frac{4}{9}$ $=$ $\frac{4}{9}$

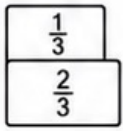
4. $\frac{1}{6}$ $<$ $\frac{5}{6}$

5. $\frac{11}{12}$ $>$ $\frac{7}{12}$

6. $\frac{2}{5}$ $<$ $\frac{4}{5}$

7. $\frac{6}{7}$ $>$ $\frac{1}{7}$

8. $\frac{3}{4}$ $>$ $\frac{2}{4}$



WORKSHEET 1: SAME DENOMINATORS

Name: _____

Date: _____

Show your thinking.

1. Explain why $\frac{7}{9} > \frac{4}{9}$.

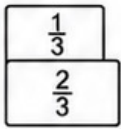
2. Mia says $\frac{3}{8} > \frac{6}{8}$ because 8 is a large denominator. Is Mia correct? Explain.

3. Order $\frac{2}{11}$, $\frac{9}{11}$ and $\frac{5}{11}$ from least to greatest.

4. Shade two fraction bars to show $\frac{3}{7} < \frac{6}{7}$.

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WORKSHEET 1: SAME DENOMINATORS

ANSWERS _____

Date: _____

Show your thinking.

1. Explain why $\frac{7}{9} > \frac{4}{9}$.

The denominators are equal, so $\frac{7}{9}$ is greater because $7 > 4$.

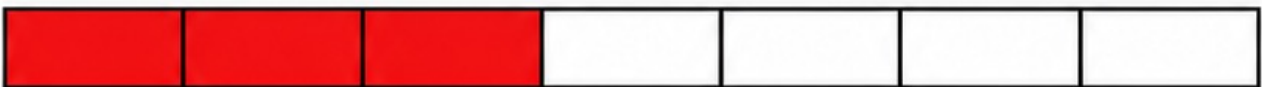
2. Mia says $\frac{3}{8} > \frac{6}{8}$ because 8 is a large denominator. Is Mia correct? Explain.

No. The denominators are equal, so $\frac{6}{8} > \frac{3}{8}$.

3. Order $\frac{2}{11}$, $\frac{9}{11}$ and $\frac{5}{11}$ from least to greatest.

$\frac{2}{11} < \frac{5}{11} < \frac{9}{11}$

4. Shade two fraction bars to show $\frac{3}{7} < \frac{6}{7}$.

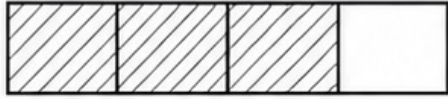


WORKSHEET 2: SAME NUMERATORS

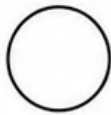
Name: _____

Date: _____

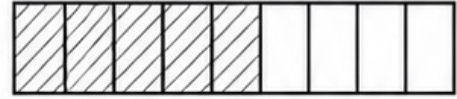
Write $<$, $>$ or $=$ in each circle.



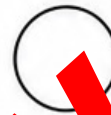
$$\frac{3}{4}$$



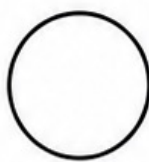
$$\frac{3}{7}$$

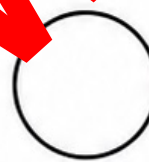


$$\frac{5}{6}$$

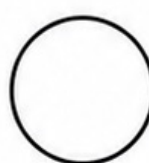


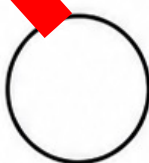
$$\frac{5}{8}$$

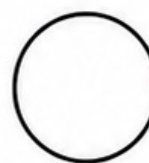
1. $\frac{3}{4}$  $\frac{3}{7}$

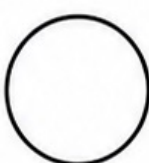
2. $\frac{5}{6}$  $\frac{5}{8}$

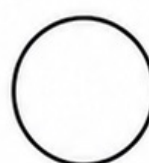
3. $\frac{2}{9}$  $\frac{2}{5}$

4. $\frac{7}{10}$  $\frac{7}{12}$

5. $\frac{1}{3}$  $\frac{1}{6}$

6. $\frac{4}{5}$  $\frac{4}{9}$

7. $\frac{6}{7}$  $\frac{6}{11}$

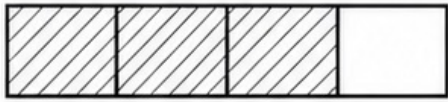
8. $\frac{3}{8}$  $\frac{3}{8}$

WORKSHEET 2: SAME NUMERATORS ANSWERS

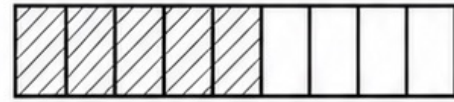
Name: _____

Date: _____

Write $<$, $>$ or $=$ in each circle.



$$\frac{3}{4} \quad \bigcirc \quad \frac{3}{7}$$



$$\frac{5}{6} \quad \bigcirc \quad \frac{5}{8}$$

1. $\frac{3}{4} \quad \bigcirc \quad \frac{3}{7}$

2. $\frac{5}{6} \quad \bigcirc \quad \frac{5}{8}$

3. $\frac{2}{9} \quad \bigcirc \quad \frac{2}{5}$

4. $\frac{7}{10} \quad \bigcirc \quad \frac{7}{12}$

5. $\frac{1}{3} \quad \bigcirc \quad \frac{1}{6}$

6. $\frac{4}{5} \quad \bigcirc \quad \frac{4}{9}$

7. $\frac{6}{7} \quad \bigcirc \quad \frac{6}{11}$

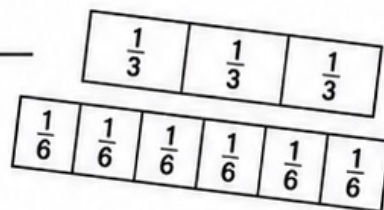
8. $\frac{3}{8} \quad \bigcirc \quad \frac{3}{8}$

WORKSHEET 2: SAME NUMERATORS

Name: _____

Date: _____

Show your thinking.



1. Explain why $\frac{4}{9} > \frac{4}{12}$.

2. Ben says $\frac{5}{6} < \frac{5}{10}$ because $6 < 10$. Is Ben correct? Explain.

3. Order $\frac{3}{4}$, $\frac{3}{10}$ and $\frac{3}{5}$ from least to greatest.

4. Shade two fraction bars to show $\frac{2}{3} > \frac{2}{7}$.

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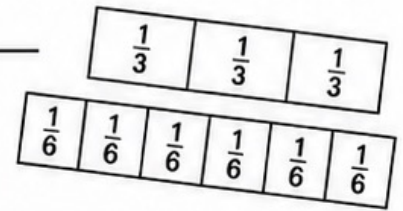
WORKSHEET 2: SAME NUMERATORS

ANSWERS

Name: _____

Date: _____

Show your thinking.



1. Explain why $\frac{4}{9} > \frac{4}{12}$.

With equal numerators, the smaller denominator makes the greater fraction; $9 < 12$.

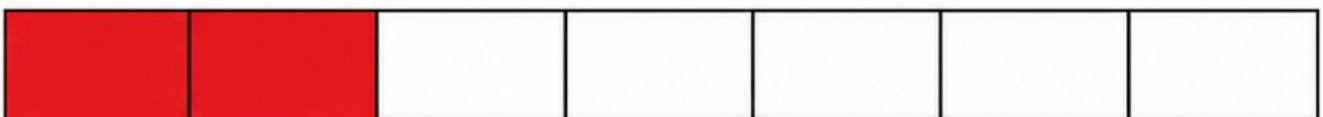
2. Ben says $\frac{5}{6} < \frac{5}{10}$ because $6 < 10$. Is Ben correct? Explain.

No. $\frac{5}{6} > \frac{5}{10}$ because sixths are larger than tenths.

3. Order $\frac{3}{4}$, $\frac{3}{10}$ and $\frac{3}{5}$ from least to greatest.

$\frac{3}{10} < \frac{3}{5} < \frac{3}{4}$

4. Shade two fraction bars to show $\frac{2}{3} > \frac{2}{7}$.

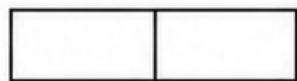


WORKSHEET 3: UNLIKE DENOMINATORS

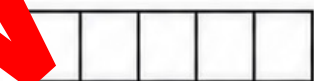
Name: _____ Date: _____

Use equivalent fractions or a visual model. Write $<$, $>$ or $=$.

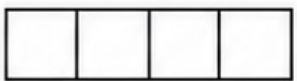
1. $\frac{1}{2}$ ○ $\frac{3}{8}$



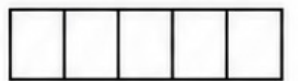
2. $\frac{2}{3}$ ○ $\frac{3}{5}$



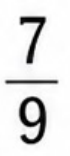
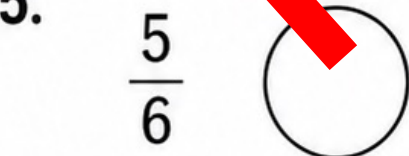
3. $\frac{3}{4}$ ○ $\frac{5}{8}$



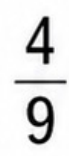
4. $\frac{2}{5}$ ○ $\frac{3}{10}$



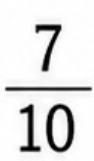
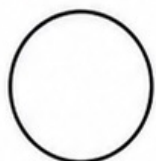
5. $\frac{5}{6}$ ○ $\frac{7}{9}$



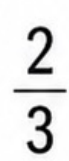
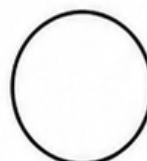
6. $\frac{3}{7}$ ○ $\frac{4}{9}$



7. $\frac{4}{5}$ ○ $\frac{7}{10}$



8. $\frac{5}{12}$ ○ $\frac{2}{3}$



WORKSHEET 3: UNLIKE DENOMINATORS

ANSWERS

Name: _____ Date: _____

Use equivalent fractions or a visual model. Write $<$, $>$ or $=$.

1. $\frac{1}{2}$ $>$ $\frac{3}{8}$



2. $\frac{2}{3}$ $>$ $\frac{3}{5}$



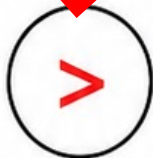
3. $\frac{3}{4}$ $>$ $\frac{5}{8}$



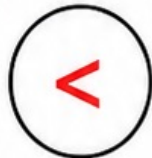
4. $\frac{2}{5}$ $>$ $\frac{3}{10}$



5. $\frac{5}{6}$ $>$ $\frac{7}{9}$



6. $\frac{3}{7}$ $<$ $\frac{4}{9}$



7. $\frac{4}{5}$ $>$ $\frac{7}{10}$



8. $\frac{5}{12}$ $<$ $\frac{2}{3}$



WORKSHEET 3: UNLIKE DENOMINATORS

Name: _____

Date: _____

Show your strategy with equivalent fractions.

- 1 Use equivalent fractions to compare $\frac{3}{4}$ $\bigcirc$ $\frac{5}{6}$.

- 2 Explain why $\frac{7}{10} > \frac{2}{3}$.

- 3 Leah says $\frac{4}{5} < \frac{3}{4}$ because $4 < 5$. Is Leah correct? Explain.

- 4 Order $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{3}{4}$ from least to greatest.
Show a common denominator.

WORKSHEET 3: UNLIKE DENOMINATORS **ANSWERS**

Name: _____

Date: _____

Show your strategy with equivalent fractions.

- 1** Use equivalent fractions to compare $\frac{3}{4}$ $<$ $\frac{5}{6}$.

$$\frac{3}{4} = \frac{9}{12}; \quad \frac{5}{6} = \frac{10}{12}, \text{ so } \frac{3}{4} < \frac{5}{6}.$$

- 2** Explain why $\frac{7}{10} > \frac{2}{3}$.

$$\frac{7}{10} = \frac{21}{30}; \quad \frac{2}{3} = \frac{20}{30}, \text{ so } \frac{7}{10} > \frac{2}{3}.$$

- 3** Leah says $\frac{4}{5} < \frac{5}{6}$ because $4 < 5$. Is Leah correct? Explain.

Yes, but the reasoning must compare equivalent fractions: $\frac{4}{5} = \frac{24}{30}$ and $\frac{5}{6} = \frac{25}{30}$.

- 4** Order $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{3}{4}$ from least to greatest.
Show a common denominator.

$$\frac{1}{2} < \frac{2}{3} < \frac{3}{4} \text{ because } \frac{6}{12} < \frac{8}{12} < \frac{9}{12}.$$

WORKSHEET 4: FRACTIONS ON NUMBER LINES

Name: _____

Date: _____

Plot each fraction, then compare or order.

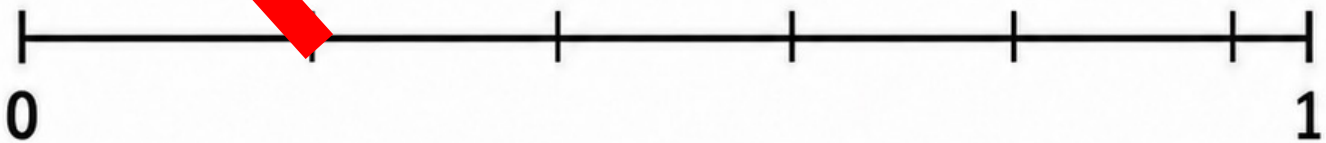
1. Plot $\frac{1}{3}$ and $\frac{2}{3}$.



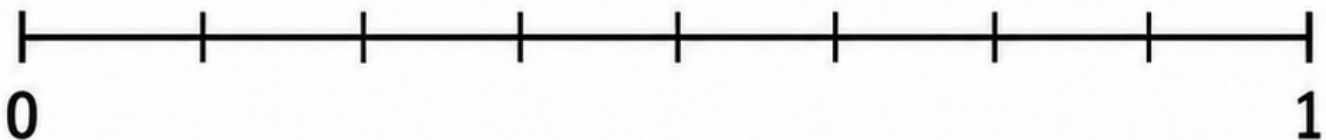
2. Plot $\frac{2}{5}$ and $\frac{4}{5}$.



3. Plot $\frac{1}{3}$ and $\frac{5}{6}$.



4. Use the number line to compare $\frac{3}{8} \bigcirc \frac{5}{8}$.



WORKSHEET 4: FRACTIONS ON NUMBER LINES **ANSWERS**

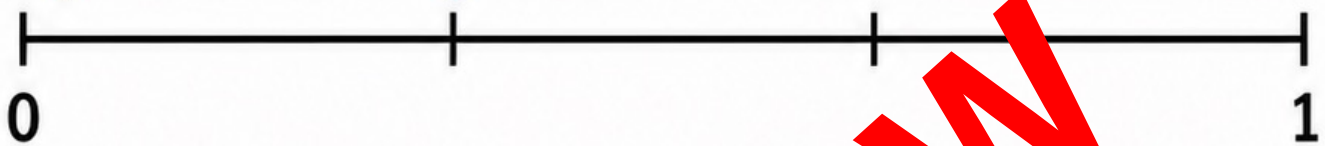
Name: _____

Date: _____

Plot each fraction, then compare or order.

1. Plot $\frac{1}{3}$ and $\frac{2}{3}$.

$\frac{1}{3}$: first internal tick; $\frac{2}{3}$: second internal tick.



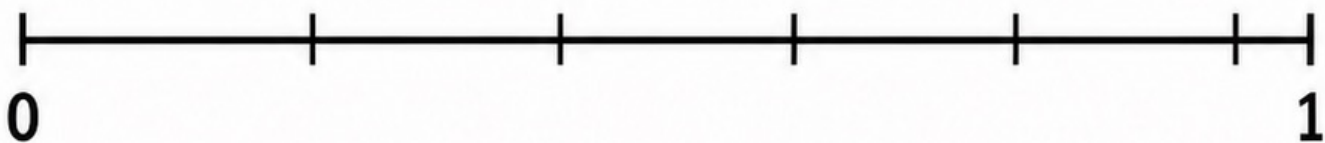
2. Plot $\frac{2}{5}$ and $\frac{4}{5}$.

$\frac{2}{5}$: second internal tick; $\frac{4}{5}$: fourth internal tick.



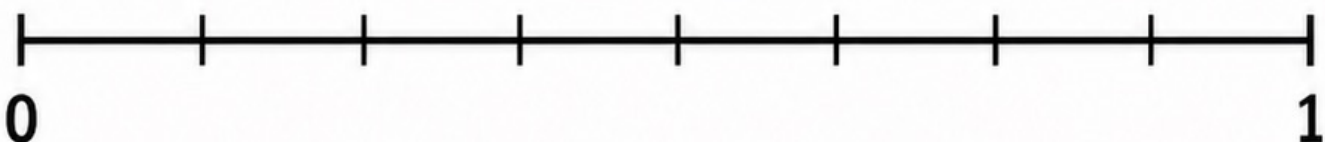
3. Plot $\frac{1}{3}$ and $\frac{5}{6}$.

$\frac{1}{3} = \frac{2}{6}$: second internal tick; $\frac{5}{6}$: fifth internal tick.



4. Use the number line to compare $\frac{3}{8} \bigcirc \frac{5}{8}$.

$\frac{3}{8} < \frac{5}{8}$.



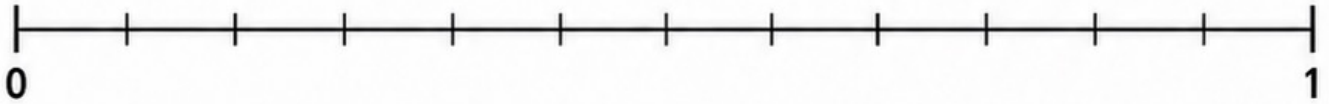
WORKSHEET 4: FRACTIONS ON NUMBER LINES

Name: _____

Date: _____

REASON AND ORDER

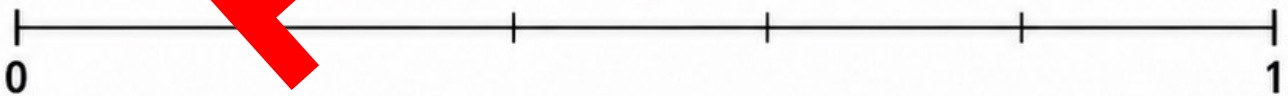
1. Plot and order $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$.



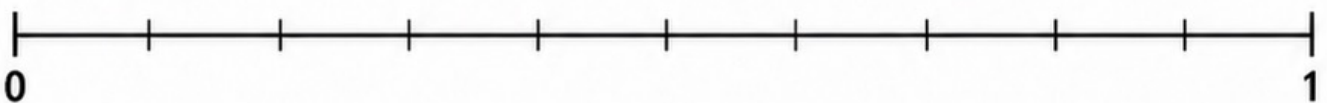
2. Which is closer to 1: $\frac{7}{8}$ or $\frac{4}{5}$? Explain.



3. What fraction is exactly halfway between $\frac{2}{5}$ and $\frac{4}{5}$? Show it on the line.



4. Plot $\frac{7}{10}$. Explain why $\frac{3}{5} < \frac{7}{10} < \frac{4}{5}$.



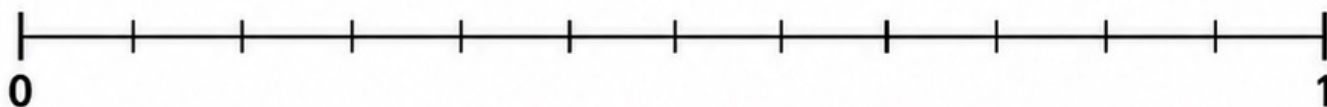
WORKSHEET 4: FRACTIONS ON NUMBER LINES **ANSWERS**

Name: _____

Date: _____

REASON AND ORDER

1. Plot and order $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$.



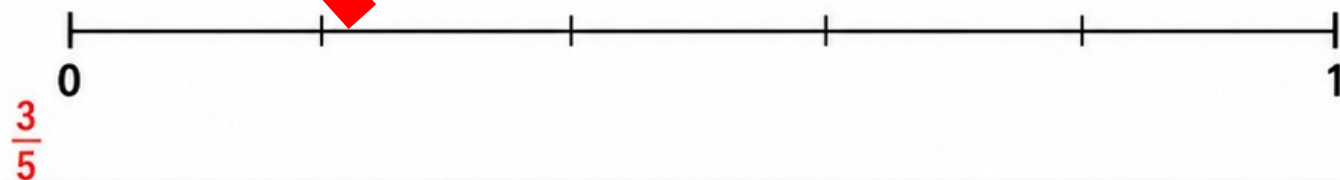
$$\frac{2}{3} = \frac{8}{12}; \frac{3}{4} = \frac{9}{12}; \frac{5}{6} = \frac{10}{12}, \text{ so } \frac{2}{3} < \frac{3}{4} < \frac{5}{6}.$$

2. Which is closer to 1: $\frac{7}{8}$ or $\frac{4}{5}$? Explain.

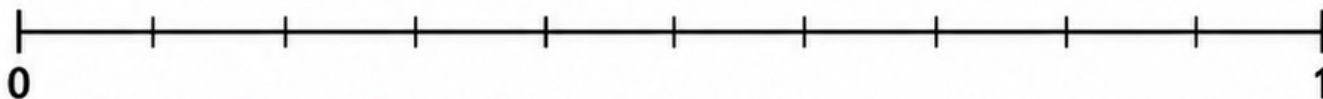


$$\frac{7}{8} \text{ is closer to 1: it is } \frac{1}{8} \text{ away, while } \frac{4}{5} \text{ is } \frac{1}{5} \text{ away.}$$

3. What fraction is exactly halfway between $\frac{2}{5}$ and $\frac{4}{5}$? Show it on the line.



4. Plot $\frac{7}{10}$. Explain why $\frac{3}{5} < \frac{7}{10} < \frac{4}{5}$.



$$\frac{3}{5} = \frac{6}{10} < \frac{7}{10} < \frac{8}{10} = \frac{4}{5}.$$

WORKSHEET 5: ORDERING FRACTIONS

Name: _____

Date: _____

Write each set from least to greatest.

1. $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{4}$ < <

2. $\frac{2}{3}$, $\frac{5}{6}$, $\frac{1}{2}$ < <

3. $\frac{3}{5}$, $\frac{7}{10}$, $\frac{4}{5}$ < <

4. $\frac{5}{8}$, $\frac{3}{4}$, $\frac{1}{2}$ < <

5. $\frac{2}{7}$, $\frac{1}{2}$, $\frac{5}{7}$ < <

6. $\frac{11}{12}$, $\frac{3}{4}$, $\frac{5}{6}$ < <

WORKSHEET 5: ORDERING FRACTIONS **ANSWERS**

Name: _____

Date: _____

Write each set from least to greatest.

1. $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{4}$

$$\frac{1}{4}$$

<

$$\frac{2}{4}$$

<

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

2. $\frac{2}{3}$, $\frac{5}{6}$, $\frac{1}{2}$

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

<

$$\frac{2}{3}$$

<

$$\frac{5}{6}$$

3. $\frac{3}{5}$, $\frac{7}{10}$, $\frac{4}{5}$

$$\frac{3}{5}$$

<

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

<

$$\frac{4}{5}$$

4. $\frac{5}{8}$, $\frac{5}{8}$, $\frac{1}{2}$

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

<

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

<

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

5. $\frac{2}{7}$, $\frac{1}{2}$, $\frac{5}{7}$

$$\frac{2}{7}$$

<

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

<

$$\frac{5}{7}$$

6. $\frac{11}{12}$, $\frac{3}{4}$, $\frac{5}{6}$

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

<

$$\frac{5}{6}$$

<

$$\frac{11}{12}$$

WORKSHEET 5: ORDERING FRACTIONS

Name: _____

Date: _____

REASON AND JUSTIFY

1. Order $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$ from least to greatest. Show twelfths.

2. Sam writes $\frac{4}{5} < \frac{3}{4} < \frac{2}{3}$. Find the error and write the correct order.

3. Prove that $\frac{5}{8}$ lies between $\frac{1}{2}$ and $\frac{3}{4}$. Use eighths.

4. Order $\frac{5}{12}$, $\frac{1}{2}$ and $\frac{2}{3}$ from greatest to least. Explain your strategy.

WORKSHEET 5: ORDERING FRACTIONS **ANSWERS**

Name: _____

Date: _____

REASON AND JUSTIFY

1. Order $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$ from least to greatest. Show twelfths.

$$\frac{2}{3} = \frac{8}{12}; \quad \frac{3}{4} = \frac{9}{12}; \quad \frac{5}{6} = \frac{10}{12}, \text{ so } \frac{2}{3} < \frac{3}{4} < \frac{5}{6}.$$

2. Sam writes $\frac{4}{5} < \frac{3}{4} < \frac{2}{3}$. Find the error and write the correct order.

Sam reversed the order. Correct: $\frac{2}{3} < \frac{3}{4} < \frac{4}{5}$

3. Prove that $\frac{5}{8}$ lies between $\frac{1}{2}$ and $\frac{3}{4}$. Use eighths.

$$\frac{1}{2} = \frac{4}{8} < \frac{5}{8} < \frac{6}{8} = \frac{3}{4}.$$

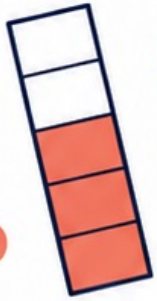
4. Order $\frac{5}{12}$, $\frac{1}{2}$ and $\frac{2}{3}$ from greatest to least. Explain your strategy.

$$\frac{2}{3} > \frac{1}{2} > \frac{5}{12} \text{ because } \frac{8}{12} > \frac{6}{12} > \frac{5}{12}.$$

FRACTION FRACAS



$\frac{2}{3}$



Compare order and conquer the fraction path!



1 FRACTION FRACAS

$$\frac{3}{8} \bigcirc \frac{5}{8}$$



2 FRACTION FRACAS

$$\frac{4}{7} \bigcirc \frac{4}{9}$$



3 FRACTION FRACAS

$$\frac{2}{3} \bigcirc \frac{3}{5}$$



4 FRACTION FRACAS

$$\frac{5}{6} \bigcirc \frac{7}{9}$$



5 FRACTION FRACAS

$$\frac{1}{2} \bigcirc \frac{4}{7}$$



6 FRACTION FRACAS

$$\frac{3}{4} \bigcirc \frac{6}{8}$$



7 FRACTION FRACAS

Order:

$$\frac{1}{2}, \frac{2}{3}, \frac{3}{4}$$



8 FRACTION FRACAS

Order:

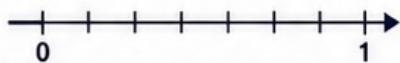
$$\frac{3}{5}, \frac{7}{10}, \frac{4}{5}$$



9 FRACTION FRACAS

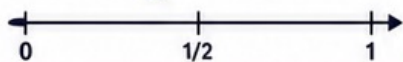
Closer to 1:

$$\frac{7}{8} \text{ or } \frac{5}{6} ?$$



10 FRACTION FRACAS

Benchmark
for $\frac{3}{7}$:
0, $\frac{1}{2}$ or 1?



11 FRACTION FRACAS

$$\frac{5}{12} \bigcirc \frac{2}{3}$$



12 FRACTION FRACAS

$$\frac{4}{5} \bigcirc \frac{7}{10}$$



FRACTION FRACAS

— HOW TO PLAY —



1 YOU NEED

- board
- 12 challenge cards
- one counter per player
- one die
- recording sheet
- pencils



2 SET UP

- ★ 2–4 players.
- ★ Shuffle the cards face down.
- ★ Place your counters on START.



3 TAKE A TURN

- 1 Draw a card.
- 2 Solve aloud and record working.
- 3 Check the answer key.
- 4 If correct, roll and move; if incorrect, stay.
- 5 Follow any special space.

★ First to **FINISH** wins! ★



4 CARD ANSWER KEY

1	<
2	>
3	>
4	>
5	>
6	=
7	$1/2 < 2/3 < 3/4$
8	$3/5 < 7/10 < 4/5$
9	$7/8$
10	$1/2$
11	<
12	>

Card	Working	Answer	Check
1			
2			
3			
4			
5			

ARCHAEOLOGIST JONES: FRACTION PATH CHALLENGE

CORE STRATEGIES



At each fork, circle the greater fraction and follow that door.



ARCHAEOLOGIST JONES: FRACTION PATH CHALLENGE

CORE STRATEGIES

SOLUTION



At each fork, circle the greater fraction and follow that door.



START

1

$$\frac{3}{8}$$



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

$$\frac{4}{7}$$



$$\frac{4}{9}$$

3

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



$$\frac{3}{5}$$

4

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



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

5

$$\frac{5}{6}$$



$$\frac{3}{6}$$

6

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



$$\frac{3}{8}$$

7

$$\frac{2}{3}$$



$$\frac{2}{9}$$

8

$$\frac{11}{12}$$



$$\frac{7}{12}$$

TREASURE CHAMBER!





ARCHAEOLOGIST JONES: FRACTION PATH CHALLENGE



★ MIXED DENOMINATORS ★

At each fork, circle the greater fraction and follow that door.





ARCHAEOLOGIST JONES: FRACTION PATH CHALLENGE



★ MIXED DENOMINATORS

SOLUTION

At each fork, circle the greater fraction and follow that door.



PREVIEW

1 $\frac{2}{3} > \frac{3}{5}$ → 2 $\frac{3}{4} > \frac{5}{6}$ → 3 $\frac{5}{6} > \frac{7}{9}$ → 4 $\frac{4}{5} > \frac{7}{10}$

5 $\frac{7}{12} > \frac{1}{2}$ → 6 $\frac{5}{8} < \frac{2}{3}$ → 7 $\frac{3}{7} < \frac{4}{9}$ → 8 $\frac{5}{12} > \frac{3}{8}$ → Treasure Chest

ASSESSMENT: COMPARING AND ORDERING FRACTIONS

Name: _____

Date: _____

PAGE 1 OF 3 — KNOWLEDGE AND FLUENCY

Score: ____ / 8

1. $\frac{4}{9}$ ○ $\frac{7}{9}$ (1 mark)

2. $\frac{5}{6}$ ○ $\frac{5}{8}$ (1 mark)

3. $\frac{2}{3}$ ○ $\frac{3}{5}$ (1 mark)

4. $\frac{3}{4}$ ○ $\frac{6}{8}$ (1 mark)

5. Order $\frac{1}{2}$, $\frac{3}{4}$ and $\frac{5}{8}$ from least to greatest.

< <

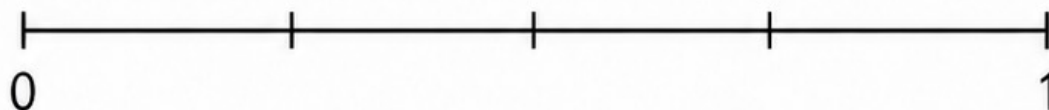
(1 mark)

6. Order $\frac{2}{3}$, $\frac{5}{6}$ and $\frac{1}{4}$ from least to greatest.

< <

(1 mark)

7. Plot $\frac{1}{2}$ and $\frac{3}{4}$.



(1 mark)

8. Show that $\frac{5}{8}$ lies between $\frac{1}{2}$ and $\frac{3}{4}$. Use eighths.

(1 mark)

ASSESSMENT: COMPARING AND ORDERING FRACTIONS **ANSWERS**

Name: _____

Date: _____

PAGE 1 OF 3 — KNOWLEDGE AND FLUENCY

Score: ____ / 8

1. $\frac{4}{9}$ $<$ $\frac{7}{9}$ (1 mark)

2. $\frac{5}{6}$ $>$ $\frac{5}{8}$ (1 mark)

3. $\frac{2}{3}$ $>$ $\frac{3}{5}$ (1 mark)

4. $\frac{3}{4}$ $=$ $\frac{6}{8}$ (1 mark)

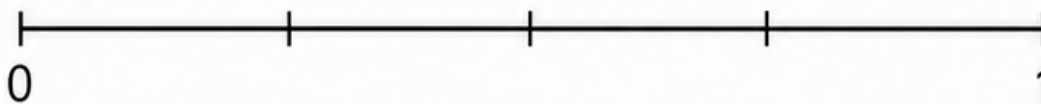
5. Order $\frac{1}{2}$, $\frac{3}{4}$ and $\frac{5}{8}$ from least to greatest.

$\frac{1}{2} < \frac{5}{8} < \frac{3}{4}$ (1 mark)

6. Order $\frac{2}{3}$, $\frac{5}{6}$ and $\frac{3}{4}$ from least to greatest.

$\frac{2}{3} < \frac{3}{4} < \frac{5}{6}$ (1 mark)

7. Plot $\frac{1}{2}$ and $\frac{3}{4}$.



$\frac{1}{2}$: second internal tick; $\frac{3}{4}$: third internal tick. (1 mark)

8. Show that $\frac{5}{8}$ lies between $\frac{1}{2}$ and $\frac{3}{4}$. Use eighths.

$\frac{1}{2} = \frac{4}{8} < \frac{5}{8} < \frac{6}{8} = \frac{3}{4}$.

(1 mark)

ASSESSMENT: COMPARING AND ORDERING FRACTIONS

Name: _____

Date: _____

PAGE 2 OF 3 — APPLICATION AND REASONING

Score: ____ / 8

1. A recipe uses $\frac{3}{4}$ cup of oats and $\frac{2}{3}$ cup of flour. (2 marks)
Which amount is greater? Show a common denominator.

2. Order these race distances from greatest to least: $\frac{5}{6}$, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{5}$. (2 marks)

3. Ava says $\frac{5}{8} > \frac{2}{3}$ because $5 > 2$. (2 marks)
Explain Ava's error and write the correct comparison.

4. Complete and order: $\frac{1}{2} = \frac{\square}{12}$; $\frac{2}{3} = \frac{\square}{12}$; $\frac{3}{4} = \frac{\square}{12}$. (2 marks)

< <

ASSESSMENT: COMPARING AND ORDERING FRACTIONS **ANSWERS**

Name: _____

Date: _____

PAGE 2 OF 3 — APPLICATION AND REASONING

Score: ____ / 8

1. A recipe uses $\frac{3}{4}$ cup of oats and $\frac{2}{3}$ cup of flour. (2 marks)
Which amount is greater? Show a common denominator.

$$\frac{3}{4} = \frac{9}{12} > \frac{8}{12} = \frac{2}{3}, \text{ so oats are greater.}$$

2. Order these race distances from greatest to least: $\frac{5}{8}$, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{4}{5}$. (2 marks)

$$\frac{7}{8} > \frac{5}{6} > \frac{4}{5} > \frac{3}{4}.$$

3. Ava says $\frac{5}{8} > \frac{2}{3}$ because $5 > 2$. (2 marks)
Explain Ava's error and write the correct comparison.

$$\text{Ava compares numerators only. } \frac{5}{8} = \frac{15}{24} < \frac{16}{24} = \frac{2}{3}.$$

4. Complete and order: $\frac{1}{2} = \frac{\boxed{6}}{12}$; $\frac{2}{3} = \frac{\boxed{8}}{12}$; $\frac{3}{4} = \frac{\boxed{9}}{12}$. (2 marks)

$$\boxed{\frac{6}{12}} < \boxed{\frac{8}{12}} < \boxed{\frac{9}{12}}$$

ASSESSMENT: COMPARING AND ORDERING FRACTIONS

Name: _____

Date: _____

PAGE 3 OF 3 — CHALLENGE AND REFLECTION

Score: ____ / 8

Three museum display cases are filled to these levels:

$$\text{Case A} = \frac{2}{3}$$

$$\text{Case B} = \frac{3}{4}$$

$$\text{Case C} = \frac{5}{6}$$

1. Order the three cases from least full to most full. (2 marks)

2. Which case is closest to full? Explain using its distance from 1. (2 marks)

3. Compare $\frac{4}{5}$ and $\frac{4}{7}$. Which is greater? Explain the same-numerator strategy. (2 marks)

4. Which strategy helped you most in this assessment: same denominator, same numerator, benchmark, equivalent fractions or number line? (2 marks)
Give one mathematical example.

ASSESSMENT: COMPARING AND ORDERING FRACTIONS **ANSWERS**

Name: _____

Date: _____

PAGE 3 OF 3 — CHALLENGE AND REFLECTION

Score: ____ / 8

Three museum display cases are filled to these levels:

$$\text{Case A} = \frac{2}{3}$$

$$\text{Case B} = \frac{3}{4}$$

$$\text{Case C} = \frac{5}{6}$$

1. Order the three cases from least full to most full. (2 marks)

Case A < Case B < Case C because $\frac{2}{3} < \frac{3}{4} < \frac{5}{6}$.

2. Which case is closest to full? Explain using its distance from 1. (2 marks)

Case C; $\frac{5}{6}$ is only $\frac{1}{6}$ from 1.

3. Compare $\frac{4}{5}$ and $\frac{4}{7}$. Which is greater? Explain the same-numerator strategy. (2 marks)

$\frac{4}{5} > \frac{4}{7}$; with equal numerators, fifths are larger pieces than sevenths.

4. Which strategy helped you most in this assessment: same denominator, same numerator, benchmark, equivalent fractions or number line? (2 marks)
Give one mathematical example.

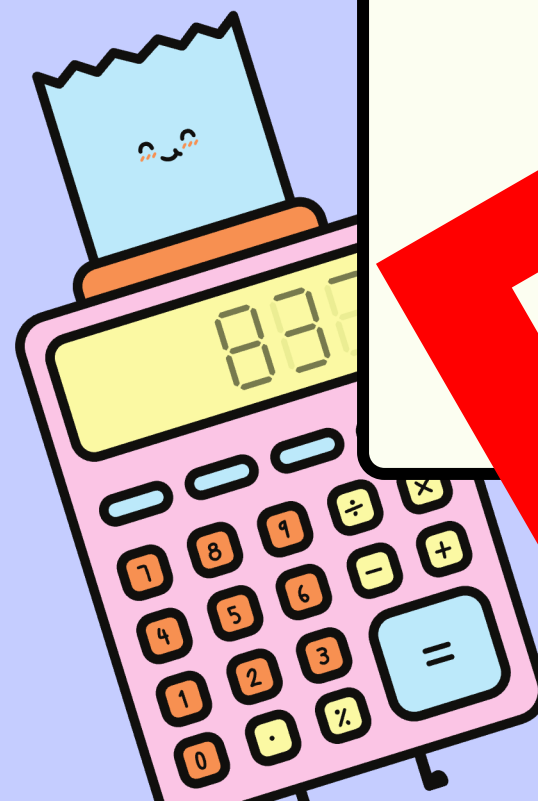
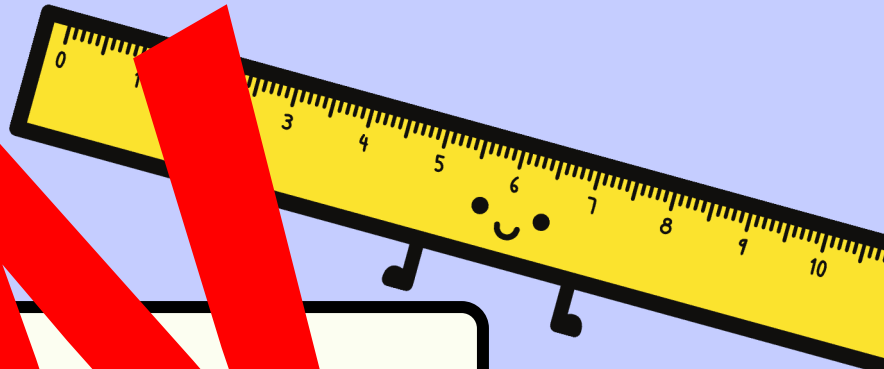
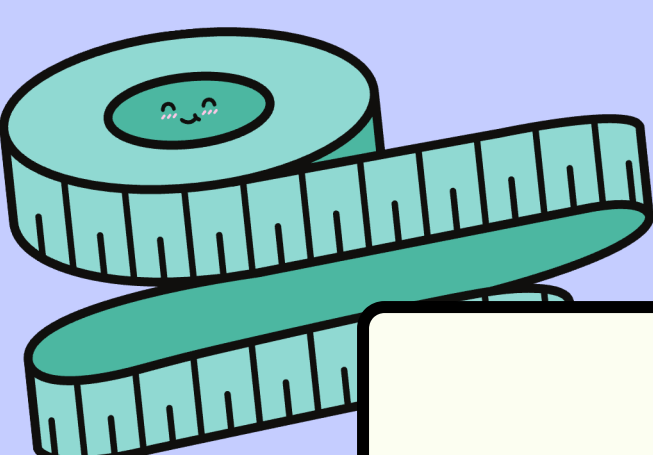
Sample: equivalent fractions — $\frac{2}{3} = \frac{8}{12} < \frac{9}{12} = \frac{3}{4}$.

COMPARING AND ORDERING FRACTIONS — YEAR 5 RUBRIC

Student: _____ Date: _____ Overall level: _____

CRITERIA	BEGINNING	DEVELOPING	ACHIEVING	CONFIDENT	EXCEEDING
1 Same denominators and numerators	Needs substantial support to compare or order fractions with the same denominators or numerators.	Sometimes compares or orders fractions correctly with the same denominators or numerators but is inconsistent.	Accurately compares and orders fractions with the same denominators or numerators at the expected Year 5 level.	Accurately and flexibly compares and orders fractions with the same denominators or numerators with clear justification.	Efficiently applies and generalises understanding of same denominators and numerators in unfamiliar problems.
2 Unlike denominators and equivalent fractions	Needs substantial support to find equivalent fractions or compare fractions with unlike denominators.	Sometimes finds equivalent fractions or compares fractions with unlike denominators but makes errors or needs prompts.	Accurately finds equivalent fractions and compares fractions with unlike denominators at the expected Year 5 level.	Accurately and flexibly uses equivalent fractions to compare with clear and concise explanations.	Efficiently selects and creates equivalent fractions and applies this understanding to complex, unfamiliar problems.
3 Ordering and number lines	Needs substantial support to order fractions or use number lines; placement is often incorrect.	Sometimes orders fractions or places them on number lines but is inconsistent or inaccurate.	Accurately orders fractions and places them on number lines at the expected Year 5 level.	Accurately uses number lines to compare and order fractions with clear reasoning.	Efficiently uses and adapts number lines to solve unfamiliar problems and explain relationships.
4 Mathematical reasoning and explanation	Finds it hard to explain thinking; reasoning is limited or unclear.	Sometimes explains thinking with some relevant ideas but reasoning is incomplete or unclear.	Explains reasoning using appropriate mathematical language and ideas at the expected Year 5 level.	Explains reasoning clearly and logically with appropriate mathematical language and examples.	Provides thorough, coherent explanations that connect ideas and justify generalisations in unfamiliar contexts.
5 Strategy choice and independence	Relies on teacher guidance to choose strategies and completes tasks with substantial support.	Sometimes chooses appropriate strategies but needs prompts or support to carry them out.	Chooses appropriate strategies and works independently at the expected Year 5 level.	Selects and flexibly adapts efficient strategies and works independently with confidence.	Independently selects, combines and refines strategies to solve unfamiliar and more complex problems.

Teacher feedback: _____



PREVIEW

Comparing and Ordering Fractions

Learning intentions

We are learning to:

- compare fractions using efficient strategies
- order fractions from least to greatest
- explain why our comparisons are correct

Compare

Order

Explain



Fraction language

The numerator counts equal parts.

The denominator tells how many equal parts make one whole.

The symbols $<$, $>$ and $=$ compare values.

Numerator
counts parts

Symbols

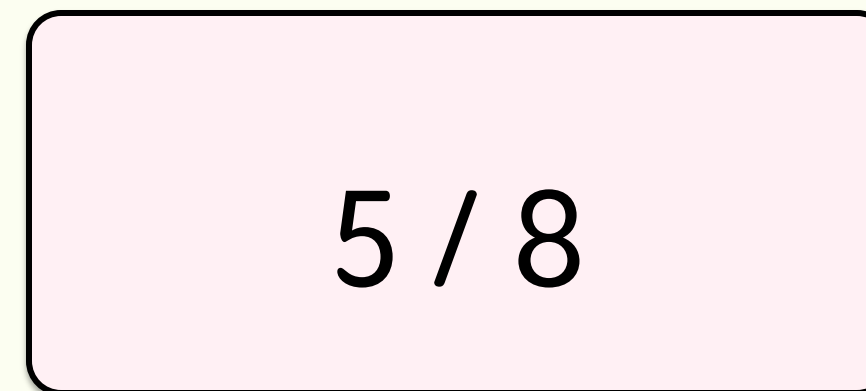
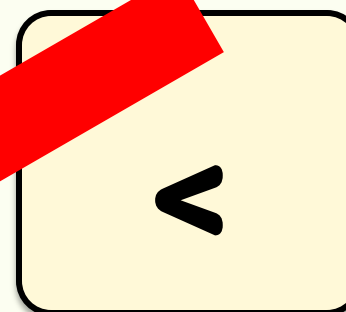
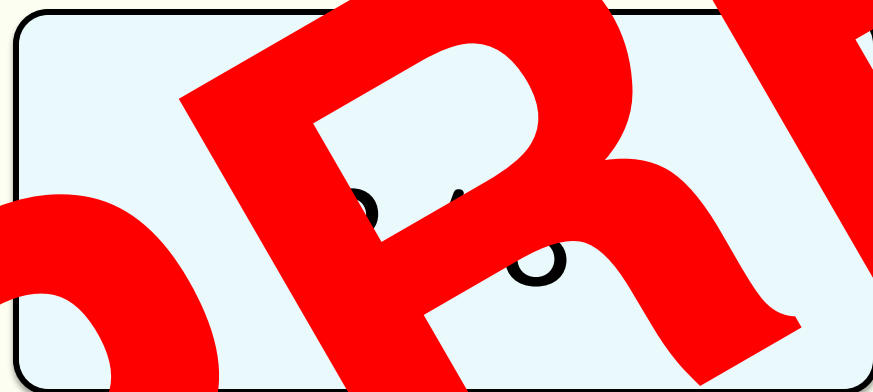
$<$ $>$ $=$

Denominator
names parts



Same denominator

When denominators match, the pieces are the same size.
Compare the numerators: the fraction with more pieces is greater.



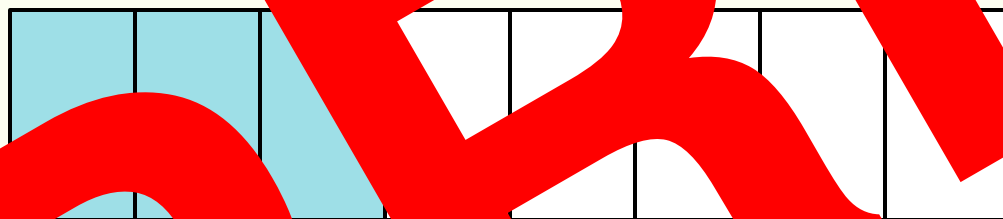
same eighths — compare 3 pieces with 5 pieces.



Worked example: same denominator

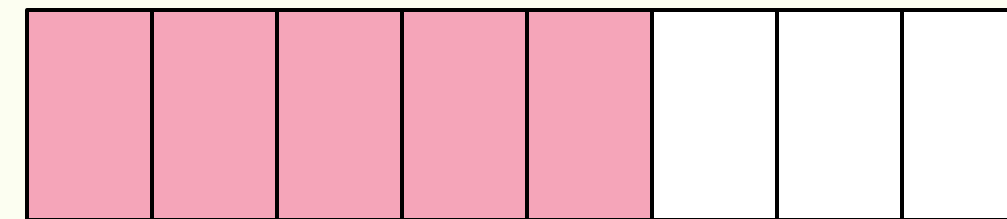
Compare $\frac{3}{8}$ and $\frac{5}{8}$.

1. Check the denominators: both are 8.
2. Compare the numerators: $3 < 5$.
3. Therefore, $\frac{3}{8} < \frac{5}{8}$.



$\frac{3}{8}$

?



$\frac{5}{8}$



Check your thinking

Which symbol makes the statement true?

$10 \circ 10$

Explain your choice to a partner.

$10 < 10$

?

$4 / 10$



Answer

$$7/10 > 4/10$$

Both fractions have ten

Sevenths is greater because $7 > 4$.

$$7/10$$

>

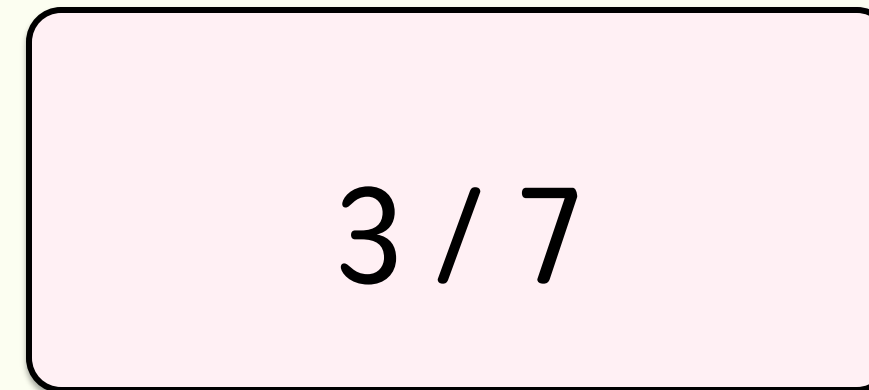
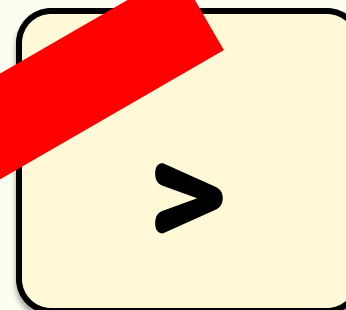
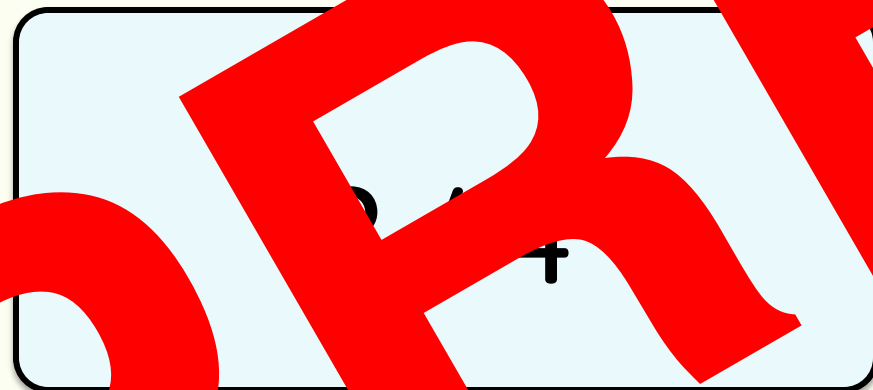
$$4/10$$

Equal-sized pieces: compare how many.



Same numerator

When numerators match, each fraction has the same number of pieces.
The smaller denominator makes more pieces, so that fraction is greater.



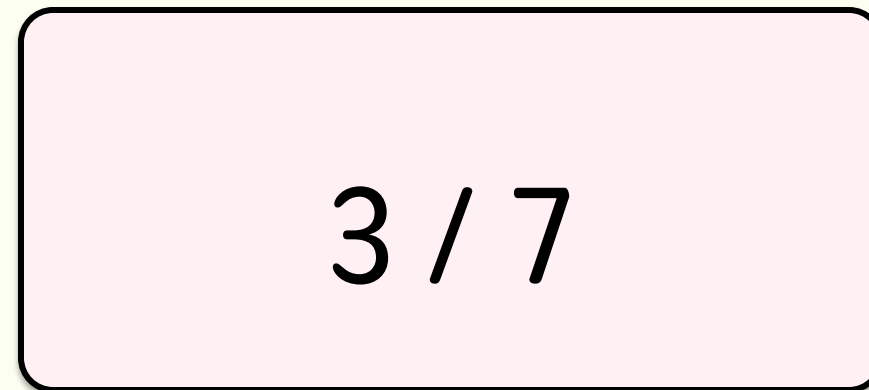
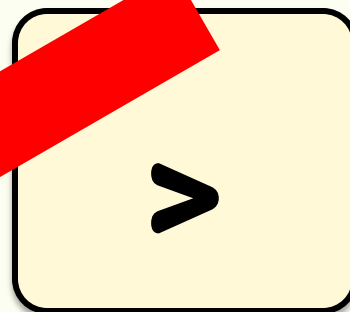
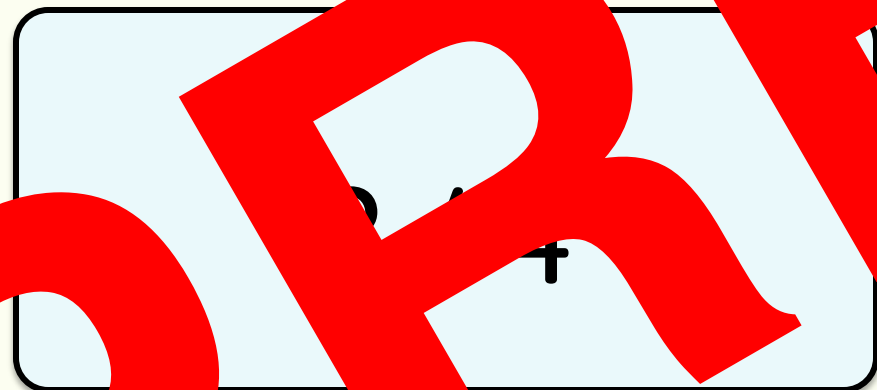
Fourths are larger pieces than sevenths.



Worked example: same numerators

Compare $\frac{3}{4}$ and $\frac{3}{7}$.

1. Check the numerators: both are 3.
2. Compare piece size: fourths are larger than sevenths.
3. Therefore, $\frac{3}{4} > \frac{3}{7}$.



Check your thinking

Which fraction is greater, $\frac{7}{6}$ or $\frac{5}{8}$?

Use the same-numerator rule and explain why.

$\frac{7}{6}$

?

$\frac{5}{8}$



Answer

$$\frac{5}{6} > \frac{3}{8}$$

Both fractions have five pieces.

Sixths are larger pieces than eighths.

$$\frac{5}{6}$$

>

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



Unlike denominators

When denominators differ, make a fair comparison.

Choose one strategy: equivalent fractions, benchmark such as $\frac{1}{2}$, or a number line.

Equivalent
fractions

Benchmark

$\frac{1}{2}$

Number

line



Worked example: equivalent fractions

Compare $\frac{2}{3}$ and $\frac{3}{5}$.

$$\frac{2}{3} = \frac{10}{15} \text{ and } \frac{3}{5} = \frac{9}{15}$$

Because $\frac{10}{15} > \frac{9}{15}$, we know $\frac{2}{3} > \frac{3}{5}$.

$$\frac{2}{3} = \frac{10}{15}$$

$$>$$

$$\frac{9}{15}$$

$$\frac{2}{3}$$

$$\frac{3}{5}$$



Check your thinking

Compare $\frac{3}{4}$ and $\frac{5}{8}$.

Find equivalent fractions with a common denominator of 8.

$$\frac{3}{4} = \frac{\quad}{8}$$

$$\frac{?}{8}$$

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



Answer

$$\frac{3}{4} = \frac{6}{8}$$

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

Therefore, $\frac{3}{4} > \frac{5}{8}$.

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

>

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

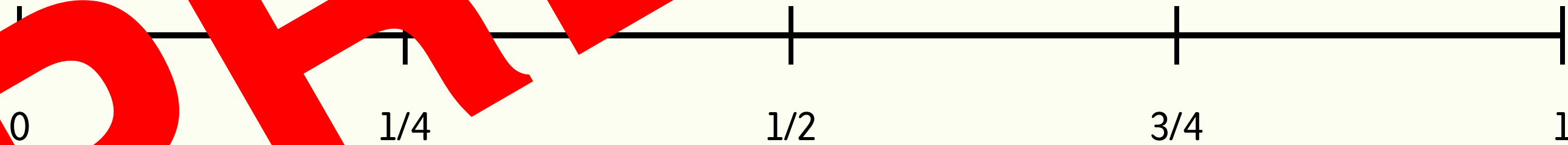


Number lines show value

Fractions farther to the right are greater.

Equal fractions land at the same point.

Divide the whole into equal intervals before plotting.



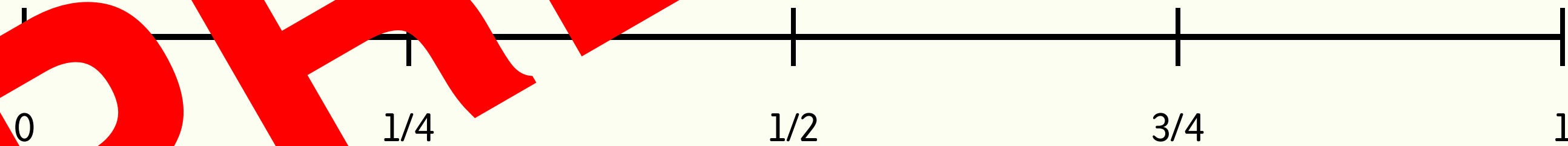
Worked example: plot and compare

On a quarters number line:

$\frac{1}{4}$ is the first internal point.

$\frac{1}{2} = \frac{2}{4}$ is the midpoint.

$\frac{3}{4}$ is the third internal point.



Ordering with a common denominator

To order several fractions, rewrite them with a shared denominator.
Then order the numerators while keeping the denominator fixed.

$\frac{6}{12}$

<

$\frac{8}{12}$

<

$\frac{9}{12}$



Ordering unlike fractions

Plan before calculating:

- choose a denominator that works for every fraction
- rewrite each fraction accurately
- order the new numerators
- translate back to the original fractions

Choose

Rewrite

Order

Check



Challenge: order three fractions

Order $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$ from least to greatest.

Use a common denominator of 12.

$$\frac{2}{3}$$

?

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

?

$$\frac{5}{6}$$



Answer

$$\frac{2}{3} = \frac{2}{3}$$

$$\frac{4}{4} = \frac{9}{9}$$

$$\frac{5}{6} = \frac{5}{6}$$

$$\frac{2}{3} < \frac{3}{4}$$

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

<

$$\frac{5}{6}$$



Choose the efficient strategy

Match the fraction pair to a useful first move.

The best strategy is the one that is secure, clear, and efficient.

Same denominator

$\frac{3}{8}$ and $\frac{5}{8}$

Same numerator

$\frac{1}{7}$ and $\frac{4}{9}$

Equivalent fractions

$\frac{2}{3}$ and $\frac{3}{5}$

Benchmark

$\frac{7}{8}$ and $\frac{5}{6}$



Watch for these misconceptions

Do not compare numerator and denominator separately when comparing numbers.

A larger denominator means smaller equal pieces.

Always compare fractions that refer to the same whole.

$\frac{2}{5} > \frac{2}{7}$
because $5 > 7$?

$\frac{4}{9} > \frac{4}{7}$
because $9 > 7$?

Different wholes
can mislead



Exit ticket

1. Compare $\frac{4}{5}$ and $\frac{7}{10}$.
2. Order $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$.
3. Name the strategy used and justify.

Compare

Order

Justify



Review

You can now compare and order fractions by using:

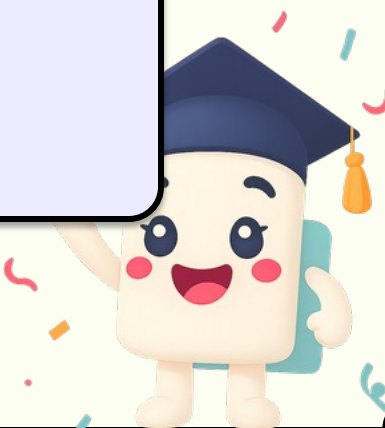
- same denominators
- same numerators
- equivalent fractions and benchmarks
- number lines

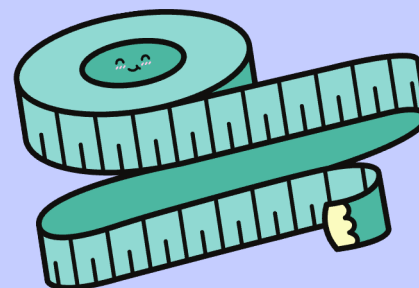
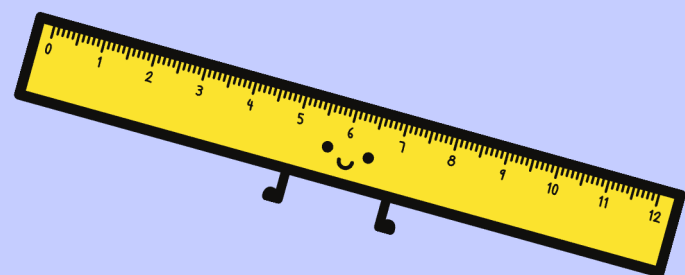
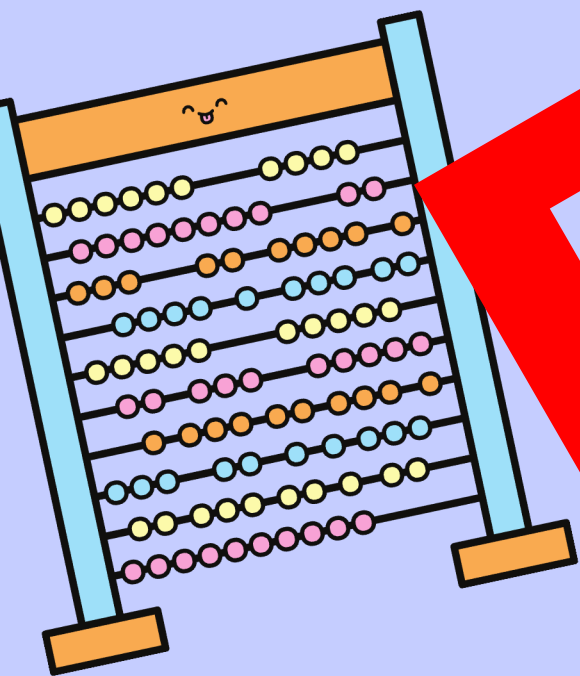
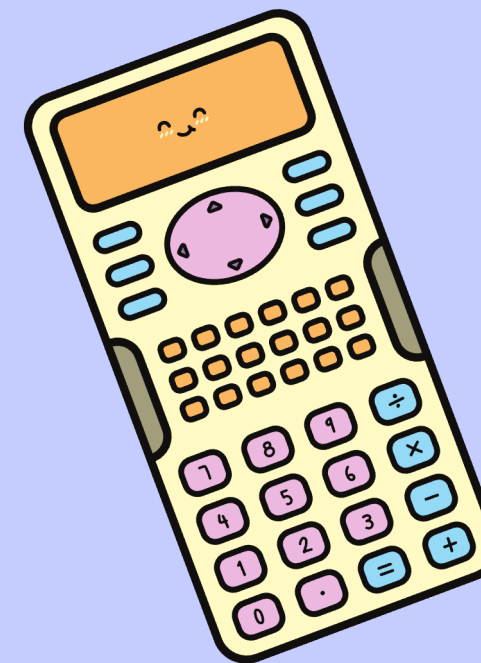
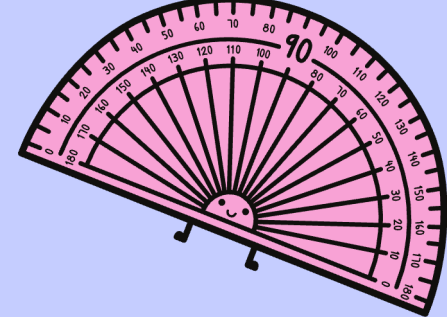
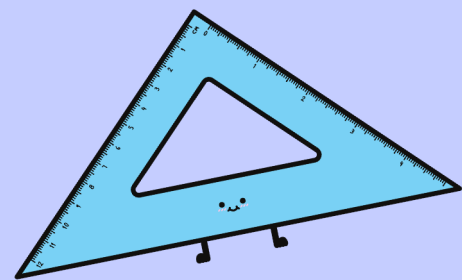
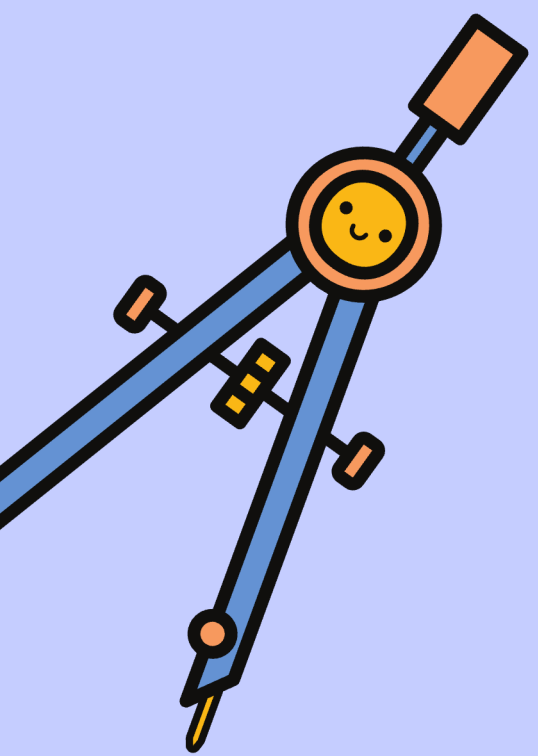
Same
denominators

Same
numerator

Equivalent
fractions

Number
line





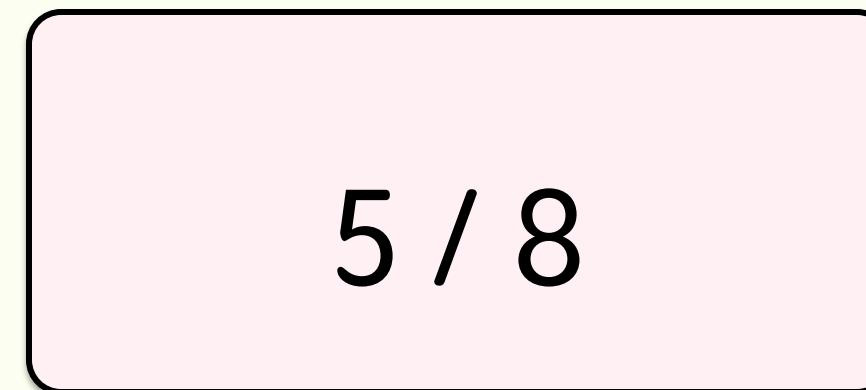
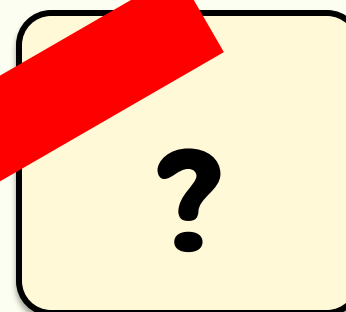
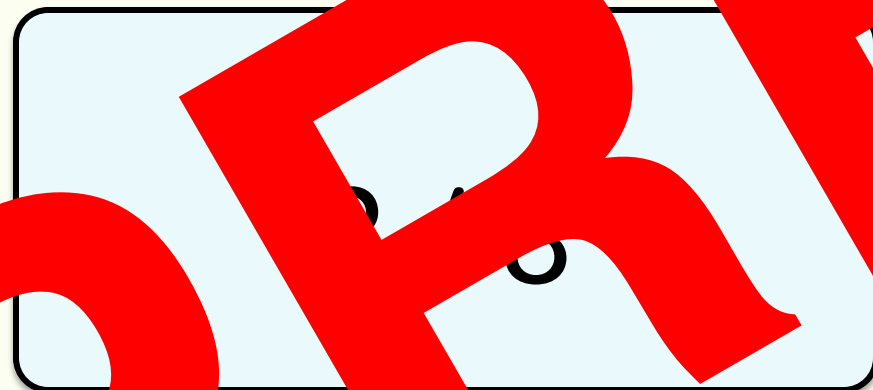
PREVIEW

Well Done!

Question 1 – Multiple choice

Which fraction is greater?

- A. $\frac{3}{8}$
- B. $\frac{5}{8}$
- C. They are equal
- D. There is not enough information



Answer 1

B. 5

The denominators match, so compare the numerators: $5 > 3$.

$\frac{3}{8}$

$<$

$\frac{5}{8}$



Question 2 – True or false

$$\frac{4}{7} < \frac{4}{9}$$

True or false? Explain the same-numerator rule.

?

$$\frac{4}{9}$$



Answer 2

False

$\frac{4}{7} > \frac{4}{9}$ because sevenths are larger pieces than ninths.

$\frac{4}{7}$

$>$

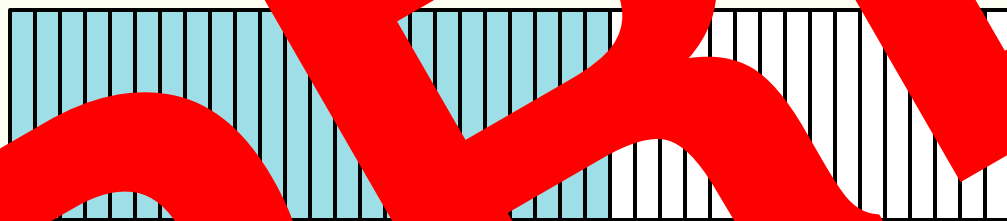
$\frac{4}{9}$



Question 3 – Visual model

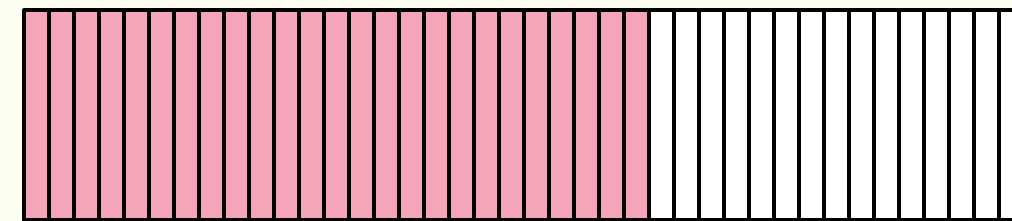
Compare $\frac{3}{5}$ and $\frac{5}{8}$.

Use the fraction bars to decide which fraction is greater.



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

?



$$\frac{5}{8} = \frac{25}{40}$$



Answer 3

$$5/8 > 5$$

ing fortieths. $25/40 > 24/40$.

$$25/40$$

<

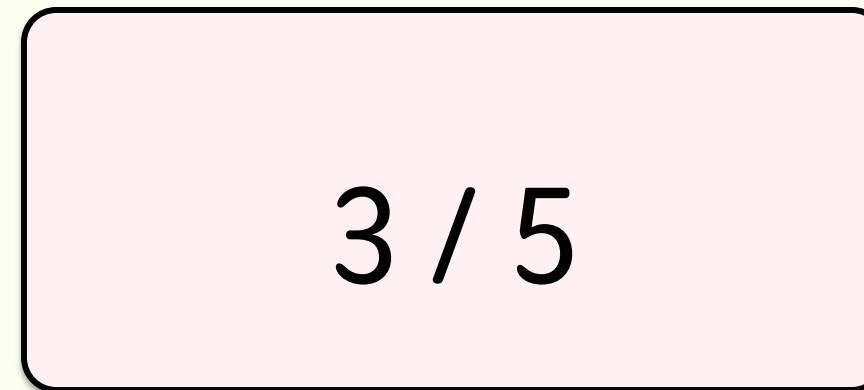
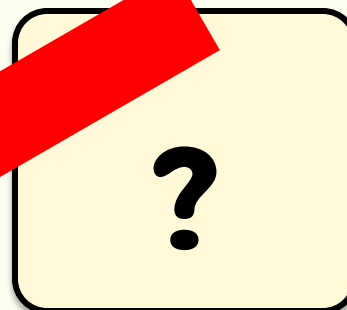
$$25 / 40$$



Question 4 – Multiple choice

Which statement is true?

- A. $\frac{2}{3} < \frac{3}{5}$
- B. $\frac{2}{3} > \frac{3}{5}$
- C. $\frac{2}{3} = \frac{3}{5}$
- D. Both fractions are greater than



Answer 4

B. $\frac{2}{3}$ or $\frac{3}{5}$

$\frac{2}{3} = \frac{10}{15}$ and $\frac{3}{5} = \frac{9}{15}$.

$\frac{2}{3}$

>

$\frac{9}{15}$



Question 5 – Short answer

Which fraction is closer to $\frac{7}{8}$ or $\frac{5}{6}$?
Show the distance from $\frac{7}{8}$ for each fraction.

$\frac{7}{8}$

?

$\frac{5}{6}$



Answer 5

$\frac{7}{8}$ is closer to 1 than $\frac{5}{6}$ is.
 $\frac{7}{8}$ is $\frac{1}{8}$ away; $\frac{5}{6}$ is $\frac{1}{6}$ away.
Because $\frac{1}{8} < \frac{1}{6}$, $\frac{7}{8}$ is closer.

$\frac{7}{8}$ is closer to 1 than $\frac{5}{6}$ is.

<

$\frac{1}{6}$



Question 6 – Multiple choice

Which order is least to greatest?

- A. $\frac{3}{4} < \frac{2}{3} < \frac{1}{2}$
- B. $\frac{1}{2} < \frac{2}{3} < \frac{3}{4}$
- C. $\frac{2}{3} < \frac{1}{2} < \frac{3}{4}$
- D. $\frac{1}{2} < \frac{3}{4} < \frac{2}{3}$



?

$\frac{2}{3}$

?

$\frac{3}{4}$



Answer 6

B. $\frac{1}{2} < \frac{2}{3} < \frac{3}{4}$

Converting twelfths: $\frac{1}{2} = \frac{6}{12}$, $\frac{2}{3} = \frac{8}{12}$, $\frac{3}{4} = \frac{9}{12}$.
So, $\frac{6}{12} < \frac{8}{12} < \frac{9}{12}$.

$$\frac{1}{2} < \frac{2}{3}$$

$$\frac{2}{3}$$

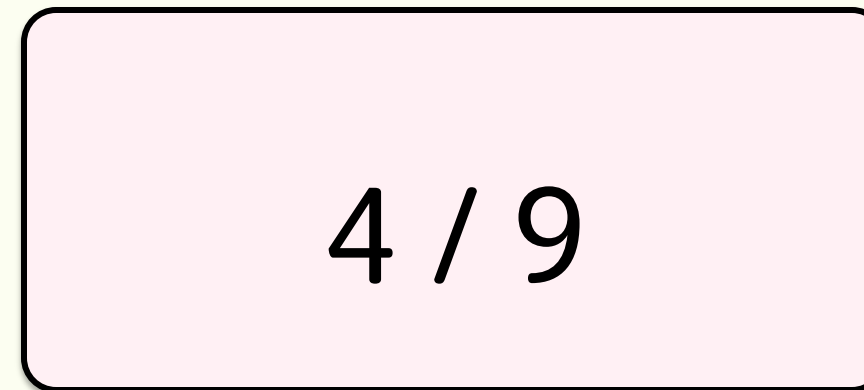
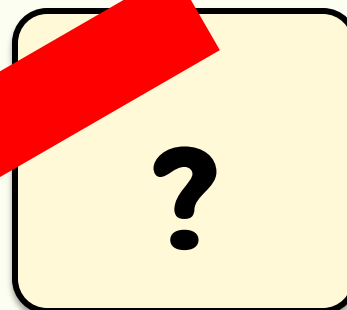
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$$\frac{3}{4}$$



Question 7 – True or false

When numerators are equal, the fraction with the larger denominator is greater.
True or false?

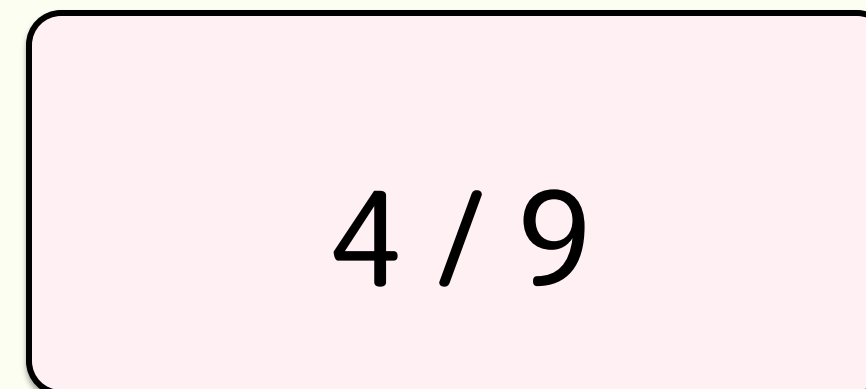
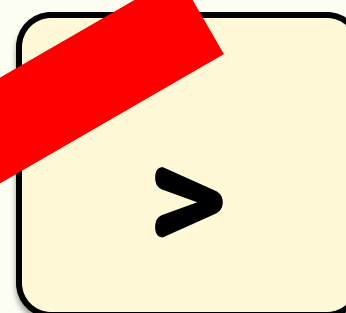
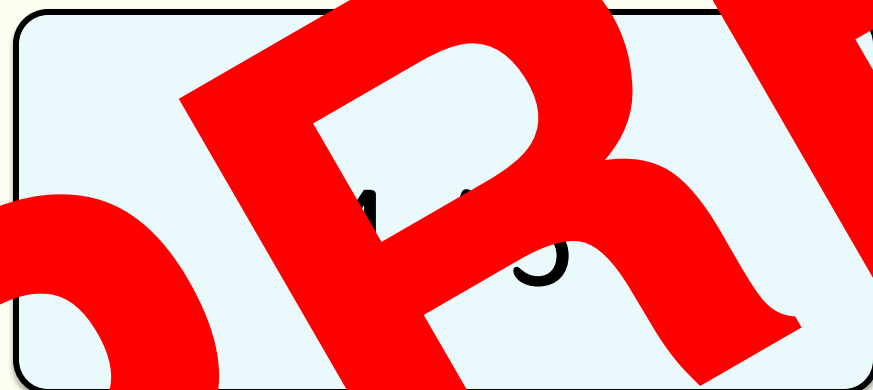


Answer 7

False

With equal numerators, the smaller denominator means larger pieces.

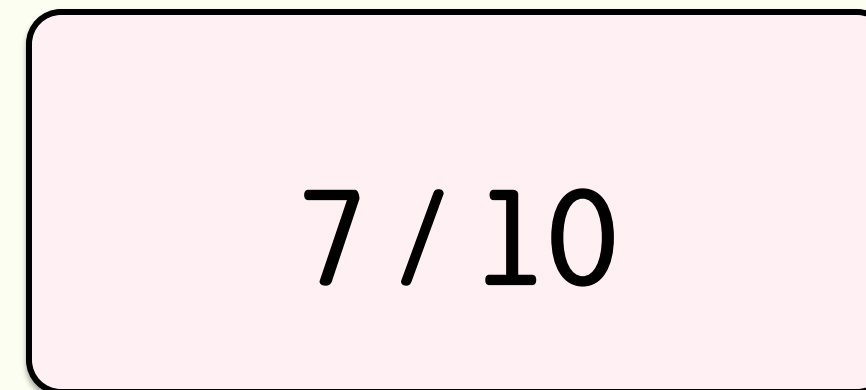
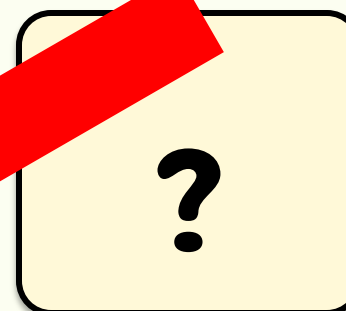
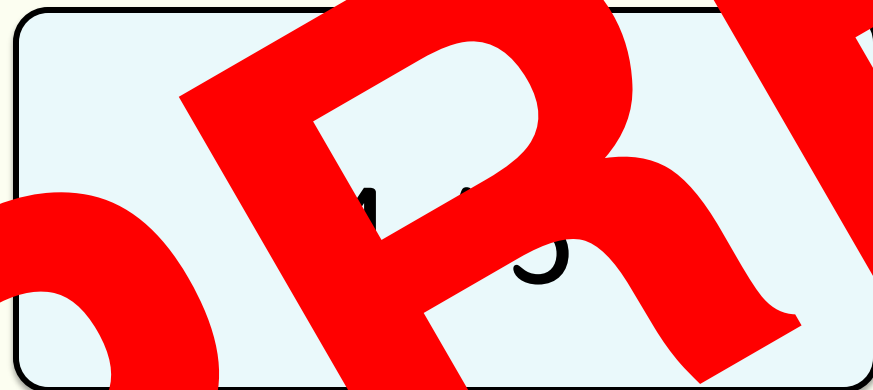
Therefore $\frac{4}{8} > \frac{4}{9}$.



Question 8 – Explain

Compare $\frac{4}{5}$ and $\frac{7}{10}$.

Show a strategy and explain why your comparison is correct.



Answer 8

$$\frac{4}{5} > \frac{7}{10}$$

$$\frac{4}{5} = \frac{8}{10}, \text{ and } \frac{8}{10} > \frac{7}{10}.$$

$$\frac{4}{5}$$

>

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



Question 9 – Strategy choice

What is the most efficient first step for comparing $\frac{3}{4}$ and $\frac{5}{8}$?

- A. Use a common denominator
- B. Compare numerators only
- C. Compare denominators only
- D. Guess from the fraction names

Common
denominator

Numerators
only

Denominators
only

Guess



Answer 9

A. Use a common denominator:

$$\frac{3}{4} = \frac{6}{8}, \text{ so } \frac{6}{8} > \frac{5}{8}.$$

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

>

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



Question 10 – Final challenge

Order $\frac{5}{12}$, $\frac{1}{2}$ and $\frac{2}{3}$ from greatest to least.
Show equivalent fractions with a denominator 12.

$$\frac{5}{12}$$

?

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

?

$$\frac{2}{3}$$



Answer 10

$$\frac{2}{3} > \frac{1}{2} > \frac{5}{12}$$

$$\frac{8}{12} > \frac{6}{12} > \frac{5}{12}.$$

$$\frac{2}{3}$$

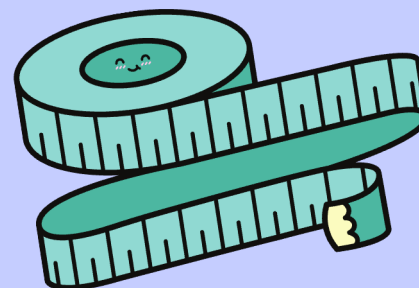
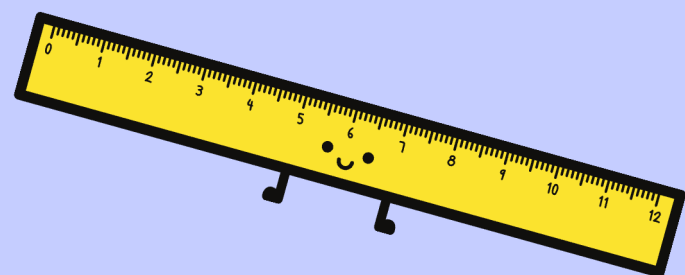
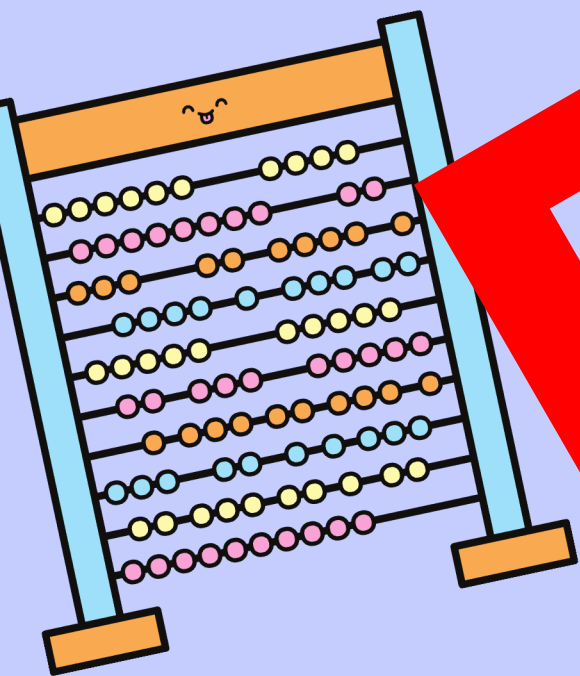
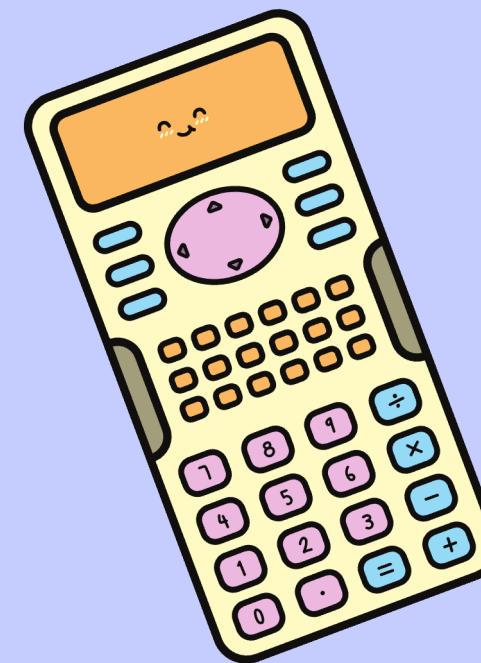
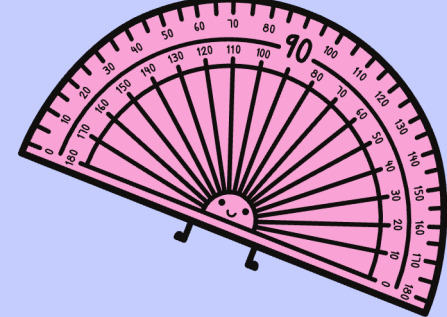
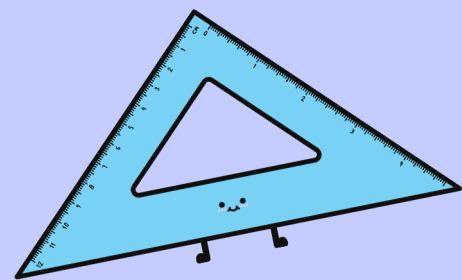
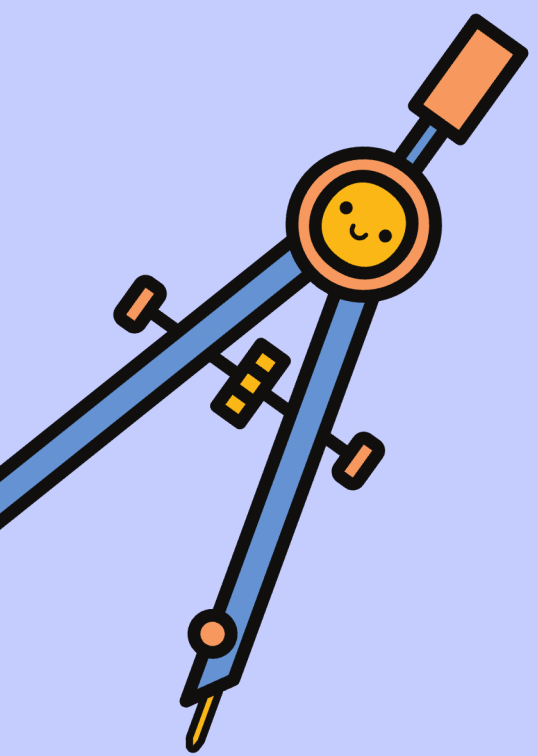
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$$\frac{1}{2}$$

>

$$\frac{5}{12}$$





PREVIEW

Well Done!