## Reasoning and Problem Solving Step 8: Compare and Order More Than 1

## National Curriculum Objectives:

Mathematics Year 5: (5F3) Compare and order fractions whose denominators are all multiples of the same number

## Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Use digit cards to complete the statement comparing fractions greater than 1 where the denominators are multiples of the same number (halving and doubling only). Expected Use digit cards to complete the statement comparing fractions greater than 1 where the denominators are multiples of the same number.
Greater Depth Use digit cards to complete the statement comparing fractions greater than 1 where the denominators share a common factor.

Questions 2, 5 and 8 (Reasoning)
Developing Identify and explain a mistake made when comparing and ordering fractions greater than 1 where the denominators are multiples of the same number (halving and doubling only).
Expected Identify and explain a mistake made when comparing and ordering fractions greater than 1 where the denominators are multiples of the same number.
Greater Depth Identify and explain a mistake made when comparing and ordering fractions greater than 1 where the denominators share a common factor.

Questions 3, 6 and 9 (Reasoning)
Developing Explain which statement is correct when ordering fractions greater than 1 where the denominators are multiples of the same number (halving and doubling only). Expected Explain which statement is correct when ordering fractions greater than 1 where the denominators are multiples of the same number.
Greater Depth Explain which statement is correct when ordering fractions greater than 1 where the denominators share a common factor.

More Year 4 and Year 5 Fractions resources.

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la. Use the digit cards to complete the statement below with improper fractions.

da. Circle the mistake in the table below.

| Less Than $2 \frac{1}{2}$ | More Than $2 \frac{1}{2}$ |
| :---: | :---: |
| $\frac{3}{2}$ | $\frac{11}{4}$ |
| $1 \frac{3}{4}$ | $3 \frac{1}{2}$ |
| $\frac{7}{2}$ | $\frac{13}{4}$ |

Explain why this is incorrect.

Sa. Two children are ordering fractions.

$$
\frac{20}{6} \square \frac{13}{3}
$$

Mo says,
The missing fraction could be $\frac{11}{3}$.
Lily says,
The missing fraction could be $\frac{9}{3}$.
Who is correct? Convince me.
lb. Use the digit cards to complete the statement below with improper fractions.



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Db. Circle the mistake in the table below.

| Less Than $1 \frac{4}{10}$ | More Than $1 \frac{4}{10}$ |
| :---: | :---: |
| $\frac{13}{10}$ | $\frac{12}{10}$ |
| $1 \frac{1}{5}$ | $1 \frac{4}{5}$ |
| $\frac{11}{10}$ | $\frac{22}{10}$ |

Explain why this is incorrect.

3b. Two children are ordering fractions.

$$
\frac{18}{8} \square \frac{5}{4}
$$

Oscar says,
Sadia says,
The missing fraction could be $\frac{24}{8}$.

Who is correct? Convince me.

4a. Use the digit cards to complete the statement below with improper fractions.


5a. Circle the mistake in the table below.

| Less Than $4 \frac{1}{7}$ | More Than $4 \frac{1}{7}$ |
| :---: | :---: |
| $\frac{22}{7}$ | $\frac{51}{7}$ |
| $3 \frac{30}{35}$ | $4 \frac{10}{14}$ |
| $\frac{28}{7}$ | $\frac{84}{21}$ |

Explain why this is incorrect.

4b. Use the digit cards to complete the statement below with improper fractions.



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5b. Circle the mistake in the table below.

| Less Than $5 \frac{5}{6}$ | More Than $5 \frac{5}{6}$ |
| :---: | :---: |
| $\frac{87}{18}$ | $\frac{39}{6}$ |
| $5 \frac{4}{24}$ | $6 \frac{8}{24}$ |
| $\frac{35}{6}$ | $\frac{80}{12}$ |

Explain why this is incorrect.

6b. Two children are ordering fractions.

$$
\frac{52}{16} \square \frac{9}{4}
$$

Imran says,


Who is correct? Convince me.

7a. Use the digit cards to complete the statement below with improper fractions.


Explain why this is incorrect.

7b. Use the digit cards to complete the statement below with improper fractions.

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24


8b. Circle the mistake in the table below.

| Less Than $2 \frac{12}{18}$ | More Than $2 \frac{12}{18}$ |
| :---: | :---: |
| $\frac{26}{12}$ | $\frac{90}{30}$ |
| $2 \frac{10}{30}$ | $3 \frac{8}{12}$ |
| $\frac{56}{42}$ | $\frac{70}{42}$ |

Explain why this is incorrect.

9b. Two children are ordering fractions.

$$
\frac{65}{25} \square \frac{56}{35}
$$

Alex says,


Kyra says,
The missing fraction could be $\frac{88}{40}$.
Who is correct? Convince me.

Reasoning and Problem Solving Compare and Order More Than 1

## Developing

1a. Various answers; for example:


2a. $\frac{7}{2}$ is the mistake because it is equivalent to $3 \frac{1}{2}$ which is more than $2 \frac{1}{2}$. 3a. Mo is correct because the numbers are ordered from smallest ( $3 \frac{1}{3}$ ) to largest ( $4 \frac{1}{3}$ ) and his number ( $3 \frac{2}{3}$ ) comes in between the two numbers.

## Expected

4a. Various answers; for example:
$\frac{32}{3}>\frac{80}{30}$

5a. $\frac{84}{21}$ is the mistake because it is equivalent to 4 which is less than $4 \frac{1}{7}$.
6 a . Archie is correct because the numbers are ordered from smallest ( $6 \frac{2}{5}$ ) to largest ( $7 \frac{2}{5}$ ) and his number ( $6 \frac{4}{5}$ ) comes in between the two numbers.

## Greater Depth

7a. Various answers; for example:


8a. $\frac{80}{25}$ is the mistake because it is equivalent to $3 \frac{1}{5}$ which is less than $3 \frac{2}{5}$. 9 a. Jason is correct because the numbers are ordered from smallest ( $2 \frac{1}{4}$ ) to largest ( $3 \frac{1}{4}$ ) and his number ( $2 \frac{1}{2}$ ) comes in between the two numbers.

## Developing

1b. Various answers; for example:


2b. $\frac{12}{10}$ is the mistake because it is equivalent to $1 \frac{2}{10}$ which is less than $1 \frac{4}{10}$. 3b. Sadia is correct because the numbers are ordered from largest ( $2 \frac{1}{4}$ ) to smallest ( $1 \frac{1}{4}$ ) and her number ( $1 \frac{3}{4}$ ) comes in between the two numbers.

## Expected

4b. Various answers; for example:


5b. $\frac{35}{6}$ is the mistake because it is equivalent to $5 \frac{5}{6}$.
6b. Bella is correct because the numbers are ordered from largest ( $3 \frac{1}{4}$ ) to smallest ( $2 \frac{1}{4}$ ) and her number ( $2 \frac{3}{4}$ ) comes in between the two numbers.

## Greater Depth

7b. Various answers; for example:


8b. $\frac{70}{42}$ is the mistake because it is equivalent to $1 \frac{2}{3}$ which is less than $2 \frac{2}{3}$. 9b. Kyra is correct because the numbers are ordered from largest ( $2 \frac{3}{5}$ ) to smallest ( $1 \frac{3}{5}$ ) and her number ( $2 \frac{1}{5}$ ) comes in between the two numbers.

