



**Mathematics
Mastery**

Y5 U6 Post-Unit Quiz: Diagnostic Questions and Response



**Year 5 Autumn 1
Unit 6**

Fractions & Decimals





Contents

❖ Guidance on the Post-Unit Quizzes

❖ Overview of this unit:

Context of this Mathematics Mastery Unit

Prior learning, Pre-requisite concepts and Possible misconceptions

❖ The Y5 U6 Post-Unit Quiz and Response signpost: Teacher version

- [Y5 U6 Post-Unit Q1](#): To identify, name and write equivalent fractions
- [Y5 U6 Post-Unit Q2](#): To identify, name and write equivalent fractions
- [Y5 U6 Post-Unit Q3](#): To compare and order fractions
- [Y5 U6 Post-Unit Q4](#): To compare and order fractions
- [Y5 U6 Post-Unit Q5](#): To read and write fractions as decimal numbers
- [Y5 U6 Post-Unit Q6](#): To read and write fractions as decimal numbers
- [Y5 U6 Post-Unit Q7](#): To compare and order decimals and fractions
- [Y5 U6 Post-Unit Q8](#): To compare and order decimals and fractions
- [Y5 U6 Post-Unit Q9](#): To round decimals
- [Y5 U6 Post-Unit Q10](#): To round decimals
- [Y5 U6 Post-Unit Q11](#): To recognise and use mixed numbers and improper fractions
- [Y5 U6 Post-Unit Q12](#): To recognise and use mixed numbers and improper fractions

❖ [The Y5 U6 Post-Quiz: Pupil version](#)



Guidance: Mathematics Mastery Pre-Unit and Post-Unit Diagnostic Quizzes

Rationale:

At Ark Curriculum Plus we believe that every young person, regardless of their background, deserves subject-specific knowledge and skills to help them make meaningful choices in life.

Mathematics Mastery provides a well-sequenced and cumulative curriculum ensuring pupils develop fluency and a deep understanding of mathematical concepts. In every unit pupils build on previous knowledge, skills and concepts.

It is crucial to identify whether pupils have the critical knowledge, skills and concepts required for a new unit.

The Multiple-Choice Quizzes for each unit are designed to support Formative Assessment. These consist of a series of well-thought-out Diagnostic Questions so each of the wrong answers reveal the specific misconceptions that the pupils may have.

The concepts are also matched to the DfE Ready to Progress criteria.

The Diagnostic Quizzes:

A new Pre-Unit Quiz at least one week in advance for quick diagnostic assessment of the pre-requisite concepts for each Mathematics Mastery unit is being provided.

A new Post-Unit Quiz at the end of a unit for quick diagnostic assessment of the key concepts from that unit.

Depending on the unit and year group, there are between four to fifteen questions. Each question allows for quick pupil response. The Misconceptions and Response Signpost reference page provides explanation and insight for each response to support teachers in identifying possible and specific misconceptions.

Useful Response Signpost is provided to address misconceptions through Maths Meetings and Consolidation lessons. Every question also pinpoints to specific lessons to reteach from a previous unit or year group.

How to use:

- In the first section, useful contextual information about the Mathematics Mastery unit is provided along with the pre-requisite concepts, possible misconceptions and the relevant Ready to Progress Criteria.
- The quiz can be used informally, for example, during a carpet/whole class teaching session, where the teacher can talk pupils through the question and the answer options and pupils give their answers on mini whiteboards, printed out Quiz (4-6 questions per page), using letter cards or just by raising hands. This way, teachers are able to gain a general picture of pupil understanding and misconceptions.
- The quiz can be carried out online on the Eedi.com with result being viewed on Diagnosticquestions.com to have precise information for individual pupil understanding. Teachers can also access question-level data and analysis.
- Schools can also create them in other online formats, for example, MS Forms or Google Forms.
- Editable powerpoint version of the quizzes are provided. A second set of questions can be created to support an assessment following any booster lessons used.

Formats provided:

We have provided the diagnostic questions in the following formats:



Eedi.com/ Diagnosticquestions.com platform

- Carried out directly on the platform
- Automated marking
- Identify misconceptions
- Individual pupil responses
- Question-level data for the class

Powerpoint/PDF

- Flexible ways of using
- Using an interactive whiteboard during a carpet teaching session, with pupils either responding with hands up or via whiteboards or A-B-C-D cards
- Paper-based quiz – print out with 4 to 6 questions on a page
- Identify misconceptions



Year 5 Unit 6: Context of this Mathematics Mastery unit

Overview of this Unit: The focus of this unit is the equivalence of fractions and decimals as they are different representations of proportion and should not be seen as separate. This unit revises fractions in many representations and introduces pupils to numbers with up to three decimal places, extending to thousandths and relating them to tenths and hundredths.

Below are the end of unit expectations for this Mathematics Mastery unit:

- recognise fractions in a variety of different concrete, pictorial and abstract forms, including equivalent fractions
- understand the relative value of decimal numbers with up to three decimal places
- use this knowledge to order, compare and round decimal numbers

Linked to working towards End of Year 5 DfE Ready to Progress criteria:

- **5F–1** Find non-unit fractions of quantities
- **5F–2** Find equivalent fractions and understand that they have the same value and the same position in the linear number system
- **5F–3** Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$, and for multiples of these proper fractions

Lessons listed by key learning in this Unit:

- 1) To identify, name and write fractions
- 2) To represent, identify, name and write fractions
- 3) To identify, name and write equivalent fractions
- 4) To identify, name and write equivalent fractions of tenths and hundredths
- 5) To compare and order fractions
- 6) To read and write fractions as decimal numbers

- 7) To recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- 8) To compare and order decimals and fractions
- 9) To recognise mixed numbers and improper fractions
- 10) To consolidate learning
- 11) To read, write and order decimal numbers with up to three decimal places
- 12) To round decimals
- 13) To solve problems involving fractions and division

Future Learning: Later in Year 5 pupils will extend calculation strategies and methods to include decimal numbers and use all four operations to solve problems involving decimals and fractions. They will learn about percentage. These concepts will be continued throughout Year 6.

Y5 U6 Prior learning, Pre-requisite concepts for this unit and Possible misconceptions



Prior learning: In Year 3, pupils began to recognise and show, using diagrams, equivalent fractions with small denominators and built on this in Year 4 to work with families of common equivalent fractions. Decimal notation was introduced in Year 4 and pupils worked with tenths and hundredths.

Linked to DfE Year 4 (previous year) Ready to Progress criteria:

- **4F-1** Reason about the location of mixed numbers in the linear number system
- **4F-2** Convert mixed numbers to improper fractions and vice versa
- **4F-3** Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers

The Pre-requisite concepts identified to access the new learning in this specific unit:

- recognise fractions as different representations
- identify equivalent fractions using diagrams
- compare fractions
- recognise and write decimal equivalents of any number of tenths
- recognise and write decimal equivalents of any number of hundredths
- round decimals to the nearest whole number

Possible misconceptions:

- Pupils may struggle to comprehend that a fraction can be represented in different ways that although may be equal, they may not be congruent (the same size) shapes. To address this, pupils should be exposed to fractions in a range of formats.
- Pupils may have a pre-existing procedural understanding of equivalent fractions or view the numerator and denominator as separate pieces rather than the part whole relationship. The numbers in a fraction may be seen as two unrelated whole numbers separated by a line (e.g. $\frac{1}{2} + \frac{1}{2} = \frac{2}{4}$) They must be given opportunities to explore the patterns and proportional nature between numerators and denominators.
- Pupils may believe fractions have to be less than one ("You can't have three halves"). Use Cuisenaire rods to build, identify and compare improper and mixed fractions.
- Some pupils might struggle with ordering fractions when mixing one and two decimal places, for example 0.3 and 0.25. By exploring decimal numbers alongside fractions and placing them on a variety of number lines can illustrate the value of the number.



Post-Unit Quiz: Diagnostic Questions, Misconceptions and Response Signpost



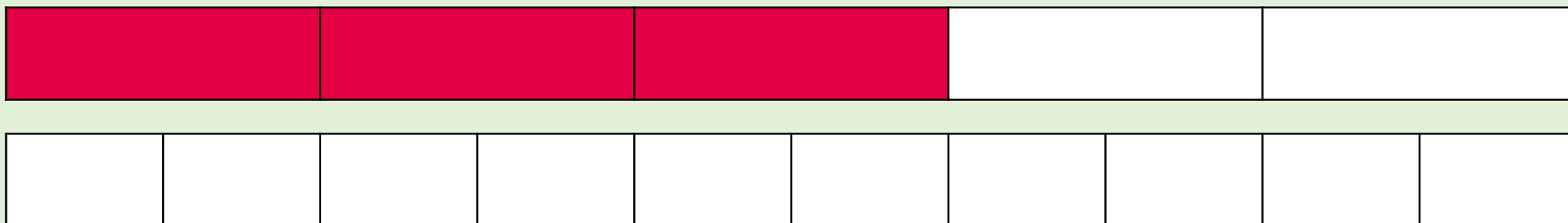
**Year 5 Autumn 2
Unit 6**

Fractions & Decimals



Y5 U6 Post-Unit Q1: To identify, name and write equivalent fractions

Use the diagram to help you find the fraction that is equivalent to $\frac{3}{5}$.



A

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

B

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

C

$$\frac{6}{10}$$

D

$$\frac{6}{4}$$

Y5 U6 Post-Unit Q1: To identify, name and write equivalent fractions

Use the diagram to help you find the fraction that is equivalent to $\frac{3}{5}$.

Answer	Misconception	Response Signpost
A. $\frac{2}{5}$	Incorrect. The pupil may have given the remaining fraction of the top bar and may not understand the concept of equivalence.	<ul style="list-style-type: none"> ➤ Avoid teaching pupils quick tricks to find equivalent fractions, pupils should use representations (such as bar models or fraction walls) to build conceptual understanding and encouraged to consider common factors and multiples when finding equivalence ➤ Booster: Year 5 Unit 6 Lesson 3: Pupils review their understanding of equivalent fractions by representing them with area models of different shapes. They then explore equivalent fractions by finding fractions of amounts.
B. 6	Incorrect. The pupil has identified the equivalent numerator value but may not understand how to write a full fraction (including a denominator too)	
C. $\frac{6}{10}$	Correct. The pupil has correctly identified that $\frac{3}{5}$ is equivalent to $\frac{6}{10}$.	
D. $\frac{6}{4}$	Incorrect. The pupil may have identified the correct numerator but given the denominator as the remaining parts of the bottom bar.	



Y5 U6 Post-Unit Q2: To identify, name and write equivalent fractions

Find the missing number.

$$\frac{2}{\quad} = \frac{16}{24}$$

A

8

B

3

C

10

D

16



Y5 U6 Post-Unit Q2: To identify, name and write equivalent fractions

Find the missing number. $\frac{2}{\quad} = \frac{16}{24}$

Answer	Misconception	Response Signpost
A. 8	Incorrect. The pupil has found the divisor and given it as their answer. They may not understand the difference between the divisor and the denominator.	<ul style="list-style-type: none">➤ Avoid teaching pupils quick tricks to find equivalent fractions, pupils should use representations (such as bar models or fraction walls) to build conceptual understanding and encouraged to consider common factors and multiples when finding equivalence➤ Booster: Year 5 Unit 6 Lesson 3: Pupils review their understanding of equivalent fractions by representing them with area models of different shapes. They then explore equivalent fractions by finding fractions of amounts.
B. 3	Correct. The pupil has found the divisor and correctly divided the denominator to find the missing number.	
C. 10	Incorrect. The pupil may have subtracted the same number from the denominator as the numerator ($16 - 14 = 2$, $24 - 14 = 10$) and may not understand the multiplicative nature of proportionality.	
D. 16	Incorrect. The pupil may have subtracted the divisor (8) and subtracted it rather than dividing and may not understand the multiplicative nature of proportionality.	



Y5 U6 Post-Unit Q3: To compare and order fractions

Which fraction could go in the box?

$$\frac{5}{6} < \boxed{\text{---}}$$

A

$$\frac{4}{6}$$

B

$$\frac{10}{12}$$

C

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

D

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

Y5 U6 Post-Unit Q3: To compare and order fractions

Which fraction could go in the box? $\frac{5}{6} < \text{—}$

Answer	Misconception	Response Signpost
A. $\frac{4}{6}$	Incorrect. The pupil may have misinterpreted the inequality sign as less than instead of greater than	<ul style="list-style-type: none"> ➤ Pupils should have opportunities to create their own representations such as bar models or fraction walls to build conceptual understanding and use these to reason when comparing and ordering fractions. ➤ Booster: Year 5 Unit 6 Lesson 5: Pupils compare and order fractions with denominators that are multiples of the same number, using rectangular area models and number lines. They then compare and order a wider range of fractions
B. $\frac{10}{12}$	Incorrect. The pupil may have misinterpreted the sign as equivalent to instead of greater than	
C. $\frac{6}{6}$	Correct. Six-sixths are greater than five-sixths.	
D. $\frac{5}{7}$	Incorrect. The pupil may think that a larger denominator corresponds with a larger fraction.	



Y5 U6 Post-Unit Q4: To compare and order fractions

Order these fractions from smallest to largest.

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

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

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

A

$$\frac{1}{4} < \frac{5}{8} < \frac{4}{5}$$

C

$$\frac{4}{5} < \frac{5}{8} < \frac{1}{4}$$

B

$$\frac{1}{4} < \frac{4}{5} < \frac{5}{8}$$

D

$$\frac{4}{5} < \frac{1}{4} < \frac{5}{8}$$



Y5 U6 Post-Unit Q4: To compare and order fractions

Order these fractions from smallest to largest. $\frac{5}{8}$ $\frac{4}{5}$ $\frac{1}{4}$

Answer	Misconception	Response Signpost
A. $\frac{1}{4} < \frac{5}{8} < \frac{4}{5}$	Correct. The pupil has correctly identified the common multiple (40) and ordered the fractions from smallest to largest.	<ul style="list-style-type: none">➤ Pupils should use representations such as bar models or fraction walls to build conceptual understanding and use these to reason when comparing and ordering fractions.➤ Booster: Year 5 Unit 6 Lesson 5: Pupils compare and order fractions with denominators that are multiples of the same number, using rectangular area models and number lines. They then compare and order a wider range of fractions
B. $\frac{1}{4} < \frac{4}{5} < \frac{5}{8}$	Incorrect. The pupil may have ordered them according to the size of the numerator only and may not 'read' the entire fraction.	
C. $\frac{4}{5} < \frac{5}{8} < \frac{1}{4}$	Incorrect. The pupil may have ordered them from largest to smallest fractions and may not understand which way to order values.	
D. $\frac{4}{5} < \frac{1}{4} < \frac{5}{8}$	Incorrect. The pupil may have made a mistake when converting the fractions, such as only converting $\frac{1}{4}$ as it is the only unit fraction. They may not understand why each fraction needs to be converted to maintain their values.	



Y5 U6 Post-Unit Q5: To read and write fractions as decimal numbers

$$\frac{4}{5} = \boxed{}$$

A

4.5

B

0.08

C

0.5

D

0.8



Y5 U6 Post-Unit Q5: To read and write fractions as decimal numbers

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

Answer	Misconception	Response Signpost
A. 4.5	Incorrect. The pupil has placed the numerator and denominator around the decimal point and may not understand how tenths as fractions, can be written as tenths and decimals.	<ul style="list-style-type: none"> ➤ Use Dienes with reassigned values to support understanding of decimal equivalence. ➤ Use language stems such as: "There is _____ tenths, _____ hundredths and _____ thousandths. The number is said as zero point _____." ➤ Booster: Year 5 Unit 6. Lesson 6 - Pupils use Dienes to represent and identify fractions and decimals. Lesson 7 - Pupils explore thousandths and their relationship to ones, tenths and hundredths. They use Dienes to represent fractions and decimals with up to three decimal places.
B. 0.08	Incorrect. The pupil may have incorrectly converted $\frac{4}{5}$ to $\frac{8}{100}$ and may not understand the difference between tenths and hundredths.	
C. 0.5	Incorrect. The pupil may have incorrectly attempted to transfer the value of the denominator into a decimal and may not understand that both the numerator and denominator must be considered.	
D. 0.8	Correct. The pupil has correctly identified that $\frac{4}{5}$ is equivalent to $\frac{8}{10}$ and has correctly converted their answer to a decimal.	



Y5 U6 Post-Unit Q6: To read and write fractions as decimal numbers

$$\frac{403}{1000} = \boxed{}$$

A

403,000

B

0.403

C

0.43

D

403.000

Y5 U6 Post-Unit Q6: To read and write fractions as decimal numbers



$$\frac{403}{1000} =$$

Answer	Misconception	Response Signpost
A. 403,000	Incorrect. The pupil may have interpreted the fraction as a whole number, using thousands rather than thousandths.	<ul style="list-style-type: none"> ➤ Use Dienes with reassigned values to support understanding of decimal equivalence. ➤ Use language stems such as: "There is _____ tenths, _____ hundredths and _____ thousandths. The number is said as zero point _____." ➤ Booster: Year 5 Unit 6. Lesson 6: Pupils use Dienes to represent and identify fractions and decimals. Lesson 7: Pupils explore thousandths and their relationship to ones, tenths and hundredths. They use Dienes to represent fractions and decimals with up to three decimal places.
B. 0.403	Correct. The pupil has correctly converted the fraction to a decimal.	
C. 0.43	Incorrect. The pupil may not understand the function of the place holder and removed it.	
D. 403.000	Incorrect. The pupil may not understand the place value of each digit.	



Y5 U6 Post-Unit Q7: To compare and order decimals and fractions

Which symbol is missing?

$$\frac{2}{5} \quad \square \quad 0.5$$

A

<

B

>

C

=

D

None of them

Y5 U6 Post-Unit Q7: To compare and order decimals and fractions

Which symbol is missing? $\frac{2}{5}$ — 0.5

Answer	Misconception	Response Signpost
A. <	Correct. $\frac{2}{5}$ is equal to 0.4, and $0.4 < 0.5$.	<ul style="list-style-type: none"> ➤ Pupils should use one representations (e.g. reassigned Dienes) to create both fractions and decimals. Encourage pupils to describe each representation as it's decimal value and its value as a fraction to build conceptual understanding and connections. ➤ Booster: Year 5, Unit 6, Lesson 8: Pupils place fractions and decimals onto number lines and generate statements of inequality. Pupils then explore fractions and decimals that are between different points on a number line.
B. >	Incorrect. The pupil has given the wrong direction on the inequality symbol and may not understand what this particular symbol represents.	
C. =	Incorrect. The pupil may incorrectly believe $\frac{2}{5}$ is equal to 0.5 – considering the denominator only (rather than the fraction as a whole).	
D. None of them	Incorrect. The pupil may not understand the purpose of each inequality symbol.	



Y5 U6 Post-Unit Q8: To compare and order decimals and fractions

Write these in order of size from smallest to largest.

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

$$0.5$$

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

$$0.65$$

A $0.5 > 0.65 > \frac{2}{3} > \frac{3}{5}$

C $0.5 > \frac{3}{5} > 0.65 > \frac{2}{3}$

B $\frac{2}{3} > \frac{3}{5} > 0.5 > 0.65$

D $0.5 < \frac{3}{5} < 0.65 < \frac{2}{3}$

Y5 U6 Post-Unit Q8: To compare and order decimals and fractions

Write these in order of size from smallest to largest.

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

$$0.5$$

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

$$0.65$$

Answer	Misconception	Response Signpost
<p>A.</p> $0.5 > 0.65 > \frac{2}{3} > \frac{3}{5}$	<p>Incorrect.</p> <p>The pupil may not understand how fractions and decimals are connected, separately ordering the decimals first and then the fractions.</p>	<p>➤ Pupils should use one representations (e.g. reassigned Dienes) to create both fractions and decimals. Encourage pupils to describe each representation as it's decimal value and its value as a fraction to build conceptual understanding and connections.</p> <p>➤ Booster: Year 5, Unit 6, Lesson 8: Pupils place fractions and decimals onto number lines and generate statements of inequality. Pupils then explore fractions and decimals that are between different points on a number line.</p>
<p>B.</p> $\frac{2}{3} > \frac{3}{5} > 0.5 > 0.65$	<p>Incorrect.</p> <p>The pupil may not understand how fractions and decimals are connected, separately ordering the fractions first and then the decimals.</p>	
<p>C.</p> $0.5 > \frac{3}{5} > 0.65 > \frac{2}{3}$	<p>Incorrect.</p> <p>The pupil has correctly ordered the fractions and decimals but has used the incorrect symbols. They may not understand the purpose of the inequality symbols.</p>	
<p>D.</p> $0.5 < \frac{3}{5} < 0.65 < \frac{2}{3}$	<p>Correct.</p> <p>The pupil has correctly ordered the fractions and decimals from smallest to largest.</p>	



Y5 U6 Post-Unit Q9: To round decimals

What is 1.42 rounded to one decimal place?

A

14.2

C

1.4

B

1

D

1.5



What is 1.42 rounded to one decimal place?

Answer	Misconception	Response Signpost
A. 14.2	Incorrect. The pupil has multiplied by ten, instead of rounding and may not understand the difference between both.	<ul style="list-style-type: none"> ➤ Use number lines to pictorially represent the position of the number in relation to the nearest whole numbers. This will help pupils to justify why a number rounds to the smaller or larger whole number. ➤ Booster: Year 5, Unit 6, Lesson 12: Pupils round decimals to the nearest whole number and play a game called 'Reasoned Rounding'. They then round decimal numbers to one decimal place.
B. 1	Incorrect. The pupil has rounded to the nearest whole number, instead of to one decimal place.	
C. 1.4	Correct. The pupil has correctly rounded to the closest tenth - to 1.4.	
D. 1.5	Incorrect. The pupil has not rounded to the closest tenth – to 1.5 instead of 1.4.	



Y5 U6 Post-Unit Q10: To round decimals

Round 24.54 to the nearest whole number.

A

24.5

C

20

B

25

D

24

Y5 U6 Post-Unit Q10: To round decimals



Round 24.54 to the nearest whole number.

Answer	Misconception	Response Signpost
A. 24.5	Incorrect. The pupil has rounded to one decimal place rather than the nearest whole number.	<ul style="list-style-type: none">➤ Use number lines to pictorially represent the position of the number in relation to the nearest whole numbers. This will help pupils to justify why a number rounds to the smaller or larger whole number.➤ Booster:<ul style="list-style-type: none">➤ Year 5, Unit 6, Lesson 12: Pupils round decimals to the nearest whole number and play a game called 'Reasoned Rounding'. They then round decimal numbers to one decimal place.
B. 25	Correct. The pupil has correctly rounded to the nearest whole number.	
C. 20	Incorrect. The pupil has rounded to the nearest ten rather than the nearest whole number.	
D. 24	Incorrect. The pupil has not rounded to the nearest whole number – 24 instead of 25 – this may suggest looking at the hundredths digit instead of the tenths, when deciding how to round.	



Y5 U6 Post-Unit Q1 1: To recognise and use mixed numbers and improper fractions

Convert $\frac{9}{4}$ to a mixed number.

A

$$\frac{18}{8}$$

B

$$2\frac{1}{9}$$

C

2 remainder 1

D

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



Y5 U6 Post-Unit Q11: To recognise and use mixed numbers and improper fractions

Convert $\frac{9}{4}$ to a mixed number.

Answer	Misconception	Response Signpost
A. $\frac{18}{8}$	Incorrect. The pupil has found an equivalent improper fraction and may not understand the definition of a mixed number.	Use Cuisenaire to create fractional values and describe them as both improper fractions and mixed numbers – using the Cuisenaire to justify their explanation. Make connections to decimal numbers greater than 1. Booster: <ul style="list-style-type: none">➤ Year 5, Unit 6, Lesson 9: Pupils identify improper fractions represented with shapes, and explore mixed numbers and decimals using Cuisenaire rods. Pupils use knowledge of multiples to convert from one form to the other and then generate and represent statements of equality and inequality.
B. $2\frac{1}{9}$	Incorrect. The pupil has given the wrong denominator and may not understand how the denominators indicate the fractional values being worked with (quarters).	
C. 2 remainder 1	Incorrect. The pupil has not given their answer as a mixed number and may not understand mixed numbers are made up of a whole number and a separate fraction.	
D. $2\frac{1}{4}$	Correct. The pupil has correctly converted to a mixed number.	



Y5 U6 Post-Unit Q12: To recognise and use mixed numbers and improper fractions

Convert $4\frac{1}{3}$ to an improper fraction.

A

$$\frac{14}{3}$$

B

$$\frac{12}{3}$$

C

$$\frac{13}{3}$$

D

$$\frac{3}{13}$$



Y5 U6 Post-Unit Q12: To recognise and use mixed numbers and improper fractions

Convert $4\frac{1}{3}$ to an improper fraction.

Answer	Misconception	Response Signpost
A. $\frac{14}{3}$	Incorrect. The pupil may not understand how many thirds are equal to one whole.	<p>Use Cuisenaire to create fractional values and describe them as both improper fractions and mixed numbers – using the Cuisenaire to justify their explanation. Make connections to decimal numbers greater than 1.</p> <p>➤ Booster:</p> <ul style="list-style-type: none">➤ Year 5, Unit 6, Lesson 9: Pupils identify improper fractions represented with shapes, and explore mixed numbers and decimals using Cuisenaire rods. Pupils use knowledge of multiples to convert from one form to the other and then generate and represent statements of equality and inequality.
B. $\frac{12}{3}$	Incorrect. The pupil has not included the $\frac{1}{3}$ when converting – and may not see $4\frac{1}{3}$ as a combined value which needs converting.	
C. $\frac{13}{3}$	Correct. The pupil has correctly converted the mixed number to an improper fraction.	
D. $\frac{3}{13}$	Incorrect. The pupil has mixed up the numerator and denominator values and may not understand the purpose of each.	



Post-Unit Quiz: Pupil version

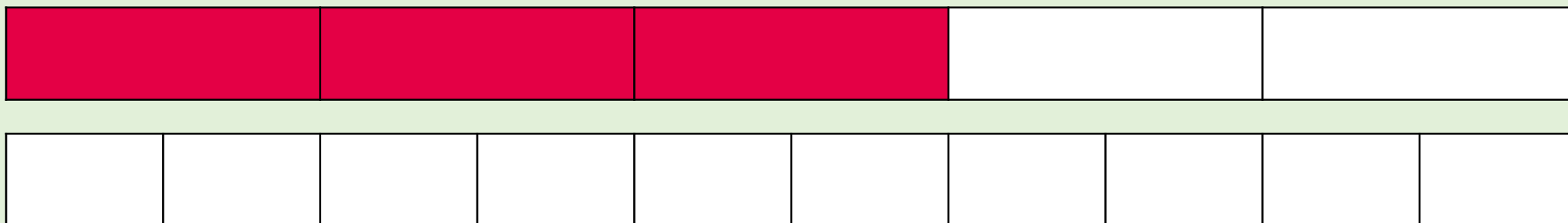


**Year 5 Autumn 2
Unit 6**

Fractions & Decimals



Q1. Use the diagram to help you find the fraction that is equivalent to $\frac{3}{5}$.



A

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

B

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

C

$$\frac{6}{10}$$

D

$$\frac{6}{4}$$



Q2. Find the missing number.

$$\frac{2}{\quad} = \frac{16}{24}$$

A

8

B

3

C

10

D

16



Q3. Which fraction could go in the box?

$$\frac{5}{6} < \boxed{\quad}$$

A

$$\frac{4}{6}$$

B

$$\frac{10}{12}$$

C

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

D

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



Q4. Order these fractions from smallest to largest.

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

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

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

A

$$\frac{1}{4} < \frac{5}{8} < \frac{4}{5}$$

C

$$\frac{4}{5} < \frac{5}{8} < \frac{1}{4}$$

B

$$\frac{1}{4} < \frac{4}{5} < \frac{5}{8}$$

D

$$\frac{4}{5} < \frac{1}{4} < \frac{5}{8}$$



Q5. $\frac{4}{5} =$

A

4.5

B

0.45

C

0.5

D

0.8



Q6. $\frac{403}{1000} =$

A

403,000

B

0.403

C

0.43

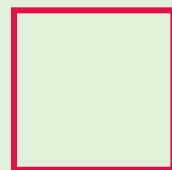
D

403.000



Q7. Which symbol is missing?

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



$$0.5$$

A

$<$

B

$>$

C

$=$

D

None of them



Q8. Write these in order of size from smallest to largest.

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

$$0.5$$

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

$$0.65$$

A $0.5 > 0.65 > \frac{2}{3} > \frac{3}{5}$

C $0.5 > \frac{3}{5} > 0.65 > \frac{2}{3}$

B $\frac{2}{3} > \frac{3}{5} > 0.5 > 0.65$

D $0.5 < \frac{3}{5} < 0.65 < \frac{2}{3}$



Q9. What is 1.42 rounded to one decimal place?

A

14.2

C

1.4

B

1

D

1.5



Q10. Round 24.54 to the nearest whole number.

A

20.5

C

20

B

25

D

24



Q11. Convert $\frac{9}{4}$ to a mixed number.

A

$$\frac{18}{8}$$

B

$$2\frac{1}{9}$$

C

2 remainder 1

D

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



Q12. Convert $4\frac{1}{3}$ to an improper fraction.

A

$$\frac{14}{3}$$

B

$$\frac{12}{3}$$

C

$$\frac{13}{3}$$

D

$$\frac{3}{13}$$