Q1.

Write these numbers in order, starting with the smallest.

$\frac{5}{7}$	$\frac{2}{7}$	$\frac{6}{7}$	$\frac{3}{7}$

smallest largest

1 mark

Q2.

Write these numbers in order starting with the smallest.

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

smallest largest

1 mark

Q3.

Write these numbers in order, starting with the smallest.

$\frac{5}{4}$	$\frac{7}{6}$	$\frac{17}{12}$	$\frac{4}{3}$

smallest largest

1 mar

k

Q4.

Here are some number cards.

Use **two** of the cards to make a fraction which is **less than** $\frac{1}{2}$**.**

$$\frac{\square}{\square}$$

1 mark

How much **less than 1** is your fraction?

_____

1 mark

Q5.

Ben cuts a pizza into 8 equal pizzas.

Ben eats $\frac{5}{8}$ and Sue eats $\frac{1}{8}$ of the pizza.

What fraction of the pizza is left?

$\square$

1 mark

Q6.

Write the missing numbers.

One is done for you.

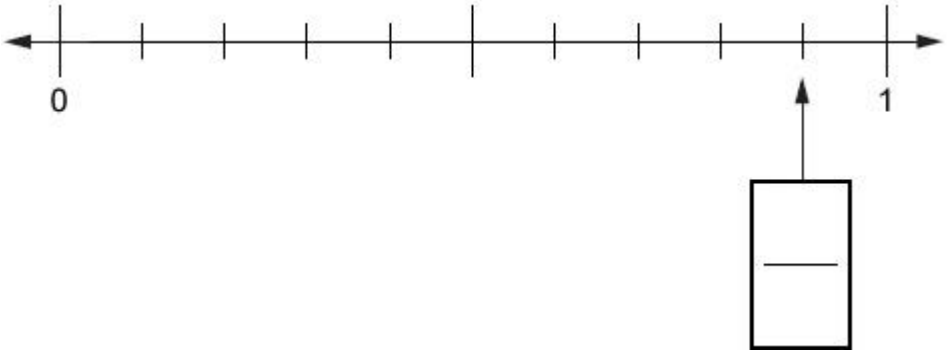
Improper fraction	Mixed number
$\frac{7}{4}$	$1\frac{3}{4}$
$\frac{\square}{2}$	$5\frac{1}{2}$
$\frac{17}{5}$	$3\frac{\square}{5}$

2 marks

Q7.

Here is part of a number line.

Write the fraction shown by the arrow.



1 mark

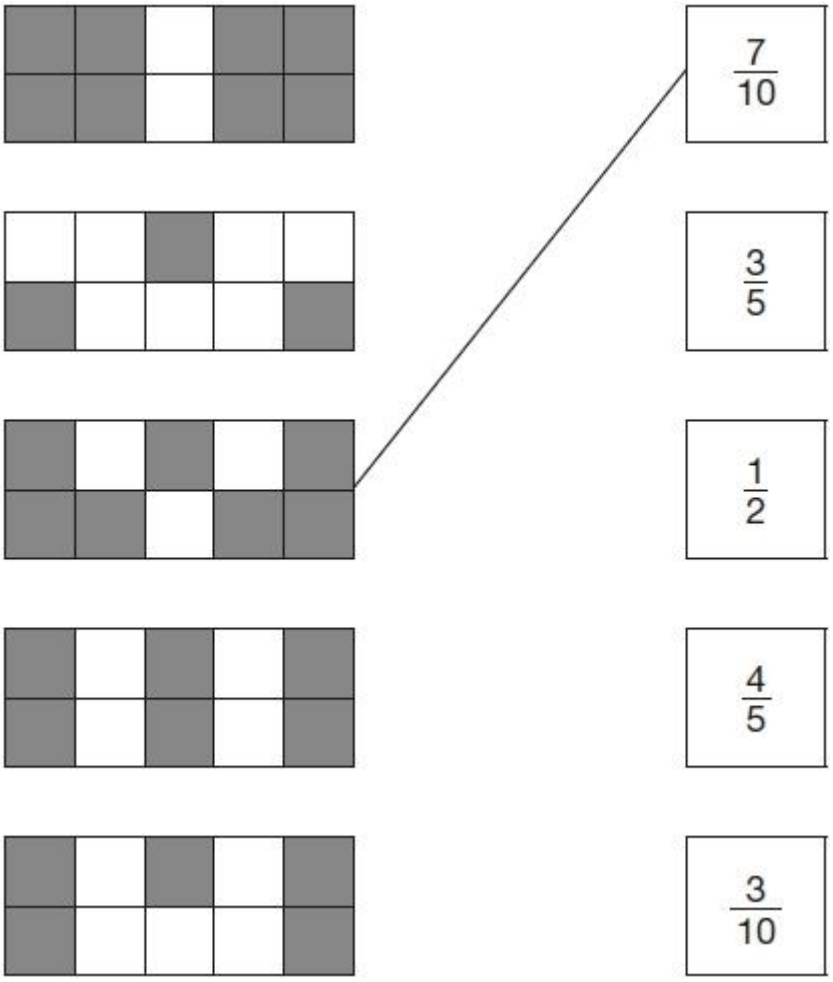
Q8.

Here are some shapes made of squares.

A fraction of each shape is shaded.

Match each shape to its equivalent fraction.

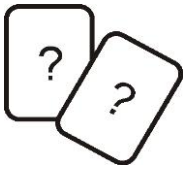
One has been done for you.



2 marks

Q9.

Karen makes a fraction using two number cards.



She says,

'My fraction is equivalent to $\frac{1}{2}$

One of the number cards is 6'

What could Karen's fraction be?

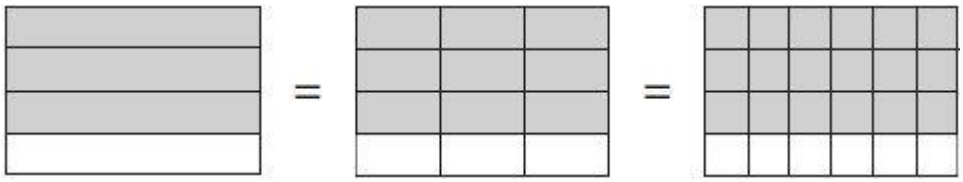
Give both possible answers.

$$\frac{\square}{\square} \quad \text{or} \quad \frac{\square}{\square}$$

2 marks

Q10.

These diagrams show three equivalent fractions.



Write the missing values.

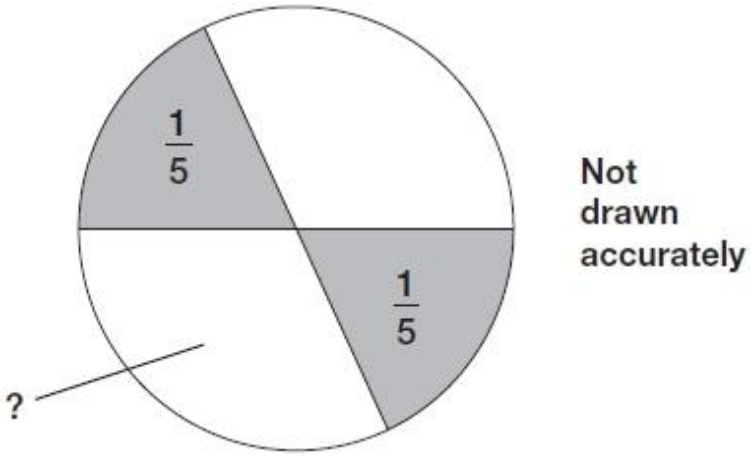
$$\frac{3}{4} = \frac{9}{\square} = \frac{\square}{24}$$

1 mark

Q11.

In this circle, each shaded part is $\frac{1}{5}$ of the area of the circle.

The two white parts have equal areas.



What fraction of the circle is **one** of the white areas?

Show your method

2 marks

Q12.

Circle the improper fraction that is equivalent to $6\frac{7}{8}$

$\frac{67}{8}$ $\frac{48}{8}$ $\frac{62}{8}$ $\frac{55}{8}$ $\frac{76}{8}$

1 mark

Q13.

The numbers in this sequence increase by the same amount each time.

Write the missing numbers.

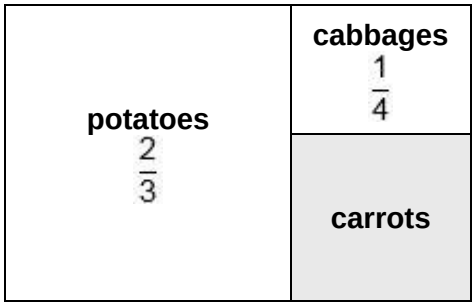
	1	$1\frac{5}{8}$	$2\frac{1}{4}$	

2 marks

Q14.

This is a diagram of a vegetable garden.

It shows the fractions of the garden planted with potatoes and cabbages.



Not to scale

The remaining area is planted with carrots.

What **fraction** of the garden is planted with carrots?

Show your method

2 marks

Q15.

Anna says $\frac{4}{7}$ is greater than $\frac{5}{9}$

Explain why Anna is correct.

1 mark

Q16.

Layla wants to estimate the answer to this calculation.

$$3\frac{9}{10} - 2\frac{1}{8} + 1\frac{4}{5}$$

Tick the calculation below that is the best estimate.

	Tick **one**
3 − 2 + 2	☐
4 − 2 + 1	☐
4 − 2 + 2	☐
3 − 2 + 1	☐

1 mark

Q17.

Write the two missing values to make these equivalent fractions correct.

$$\frac{\square}{3} = \frac{8}{12} = \frac{4}{\square}$$

2 marks

Q18.

Write the missing fraction.

$$\frac{1}{3} + \frac{1}{4} + \square = 1$$

1 mark

Q1.

$\frac{2}{7}$ $\frac{3}{7}$ $\frac{5}{7}$ $\frac{6}{7}$

[1]

Q2.

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

[1]

Q3.

$\frac{7}{6}$ $\frac{5}{4}$ $\frac{4}{3}$ $\frac{17}{12}$

Accept equivalent, e.g. $\frac{14}{12}$ $\frac{15}{12}$ $\frac{16}{12}$ $\frac{17}{12}$

[1]

Q4.

(a)

$\frac{\boxed{3}}{\boxed{7}}$ OR $\frac{\boxed{3}}{\boxed{9}}$ OR $\frac{\boxed{3}}{\boxed{11}}$ OR $\frac{\boxed{5}}{\boxed{11}}$

Accept only fraction formed by the cards given.

1

(b)

$\frac{4}{7}$ OR $\frac{6}{9}$ OR $\frac{8}{11}$ OR $\frac{6}{11}$

consistent with part (a).

If part (a) is incorrect, accept working of 1 – (answer to part (a)) provided the numbers used are on the cards.

Accept decimals.

If answer to part (a) is greater than 1, answer to part (b) must be negative.

1

[2]

Q5.

$\frac{1}{4}$ or $\frac{2}{8}$

[1]

Q6.

$\frac{\boxed{11}}{2}$

1

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

1

[2]

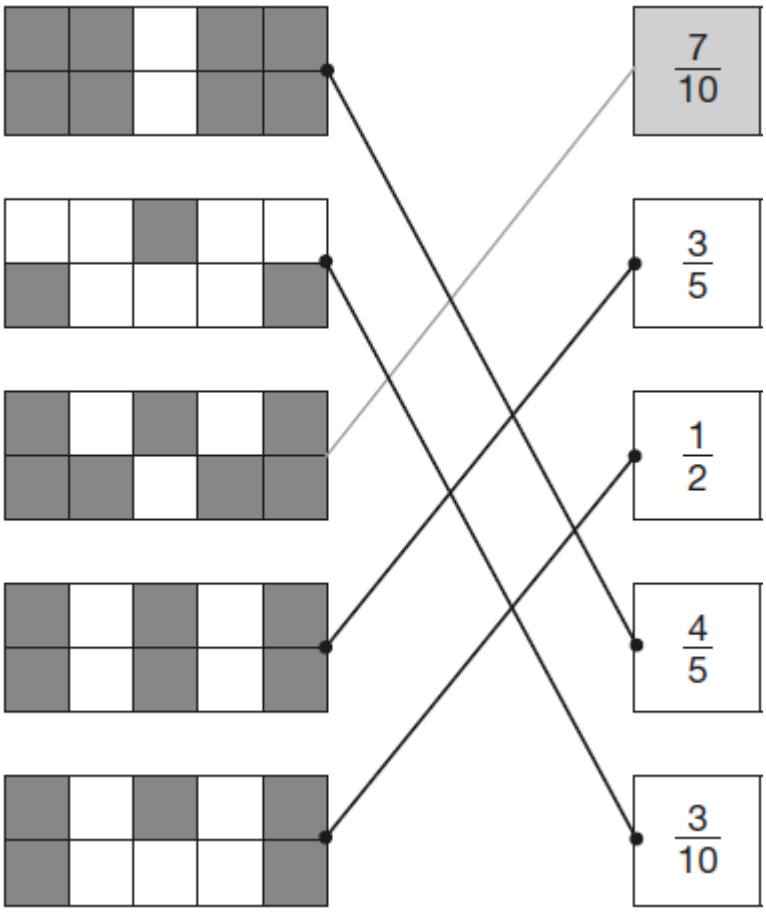
Q7.

$\frac{9}{10}$ or equivalent

[1]

Q8.

Award **TWO** marks for four shapes matched correctly as shown:



If the answer is incorrect, award **ONE** mark for three shapes matched correctly.

Lines need not touch shapes or fraction boxes, provided the intention is clear.

Do not *credit any shape that has been matched to more than one fraction.*

Up to 2

[2]

Q9.

Award **TWO** marks for both fractions correct as shown:

$$\frac{\boxed{3}}{\boxed{6}} \quad \text{OR} \quad \frac{\boxed{6}}{\boxed{12}}$$

If the answer is incorrect, award **ONE** mark for one fraction correct.

Accept fractions written in either order.

Up to 2

[2]

Q10.

Both values correct, as shown:

$$\frac{3}{4} = \frac{9}{\boxed{12}} = \frac{\boxed{18}}{24}$$

Both values must be correct for the award of ***ONE*** *mark.*

[1]

Q11.

$\frac{3}{10}$ or equivalent

Accept equivalent fractions, decimals or percentages

2

or

Shows or implies a complete correct method and no conceptual errors, eg:

- Shaded fraction is $\frac{1}{5} + \frac{1}{5} = \frac{2}{5}$

  Fraction of total white area = $1 - \frac{2}{5} = \frac{3}{5}$

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

- $\frac{1}{5} + \frac{1}{5}$ = 20% + 20% = 30% *(error)*

White area = 70%

Each white area = 35%

! 30 with no % sign

Accept for 1m as evidence of a correct method

! $\frac{1.5}{5}$ ***or*** $\frac{1\frac{1}{2}}{5}$

Accept for 1 as evidence of a correct method

(incorrect notation for $\frac{3}{5} \div 2$*)*

Do not accept *conceptual errors seen, eg:*

- $\frac{1}{5} + \frac{1}{5} = \frac{2}{10}$
- $\frac{1}{5} + \frac{1}{5}$ *= 5% + 5% = 10%*
- $\frac{6}{10} \div 2 = \frac{3}{5}$

1

[2]

Q12.

Correct number circled, as shown:

$\frac{67}{8}$ $\frac{48}{8}$ $\frac{62}{8}$ $\frac{55}{8}$ $\frac{76}{8}$

Accept alternative unambiguous positive indication of the correct answer, e.g. fraction ticked.

[1]

Q13.

(a) $\frac{3}{8}$ written in the first box

1

Accept equivalent fractions or an ***exact*** *decimal equivalent, e.g. 0.375*

(b) $2\frac{7}{8}$ **OR** $\frac{23}{8}$ written in the last box

1

Accept equivalent fractions or an ***exact*** *decimal equivalent, e.g. 2.875*

[2]

Q14.

Award **TWO** marks for the correct answer of $\frac{1}{12}$ or an equivalent fraction.

If the answer is incorrect, award **ONE** mark for:

- sight of $\frac{11}{12}$

OR

- evidence of appropriate method, e.g.
  - $\frac{2}{3}+\frac{1}{4}$

    $\frac{8}{12}+\frac{3}{12}=\frac{10}{12}$ *(error)*

    $1-\frac{10}{12}=$
  - $1-\frac{2}{3}-\frac{1}{4}=$

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

Q15.

Gives a correct explanation that converts the given fractions to decimals **or** fractions with a common denominator / numerator **or** percentages, eg:

- $\frac{4}{7}=\frac{36}{63}$ but $\frac{5}{9}=\frac{35}{63}$
- 0.57142… > 0.55555
- Because there is a $\frac{1}{63}$ difference between the two

For $\frac{4}{7}$ accept:

- *0.57(...) **or** 57(. ...%)*

For $\frac{5}{9}$ accept:

- *0.56 **or** 0.55(...) **or** 56(%) **or** 55(. ...%)*

Accept minimally acceptable explanations, eg:

- $\frac{36}{63}$ $\frac{35}{63}$
- *0.56 0.57*

***Do not accept** incomplete explanations that fail to convert both fractions to a common format, eg:*

- $\frac{4}{7}$ *is 0.57 so it is bigger*
- *9ths are smaller than 7ths and there is only one more 9th*

than 7th so $\frac{4}{7}$ *is greater*

! Condone method of conversion incorrectly expressed in an otherwise correct explanation, eg:

- $\frac{4}{7} \times 9 = \frac{36}{63}$

[1]

Q16.

Third box only ticked correctly, as shown:

3 − 2 + 2	
4 − 2 + 1	
4 − 2 + 2	✓
3 − 2 + 1	

Accept alternative unambiguous positive indication of the correct answer, e.g. Y.

[1]

Q17.

$$\frac{\boxed{2}}{3} = \frac{8}{12} = \frac{4}{\boxed{6}}$$

[2]

Q18.

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

[1]