

Mark schemes

Q1.

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

Accept equivalent fractions or decimals.

[1]

Q2.

$$\frac{1}{5}$$

Accept equivalent fractions, eg  $\frac{3}{15}$   
Accept 0.2 **OR** 20%

[1]

Q3.

Two fractions circled as shown:

$$\left(\frac{2}{3}\right) \quad \frac{6}{10} \quad \frac{9}{12} \quad \left(\frac{10}{15}\right) \quad \frac{6}{20}$$

**Do not** award the mark if additional incorrect fractions are circled.

Accept alternative unambiguous indications, eg fractions ticked, crossed or underlined.

[1]

Q4.

Fractions completed as shown below:

$$\frac{\boxed{6}}{10} \quad \frac{\boxed{9}}{15} \\ \frac{12}{\boxed{20}}$$

All three fractions must be correct for the award of the mark.

[1]

Q5.

$$\frac{\boxed{3}}{\boxed{5}} \quad \frac{\boxed{3}}{\boxed{4}} \quad \frac{\boxed{17}}{\boxed{20}} \quad \frac{\boxed{9}}{\boxed{10}}$$

Fractions must be written in the correct order for the award of the mark.

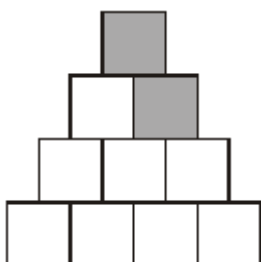
Accept equivalent fractions or decimals.

[1]

Q6.

**Q7.**

Any two squares shaded, eg



*Accept part shapes shaded provided the intention is clear.  
Accept inaccuracies in shading provided the intention is clear.*

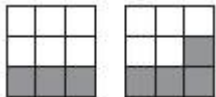
[1]

**Q8.**

£11.25

[1]

**Q9.**(a) Indicates **Yes** and gives a correct explanation, eg:

- $\frac{1}{3} = \frac{3}{9}, \frac{3}{9} < \frac{4}{9}$
- 
- $\frac{1}{3}$  of 9 is 3 not 4
- $\frac{4}{9}$  should be  $\frac{1.333...}{3}$ , not  $\frac{1}{3}$
- $0.33... < 0.44...$
- $\frac{1}{3} = \frac{4}{12}, \frac{4}{12} < \frac{4}{9}$
- $\frac{1}{3}$  of 27 = 9 and  $\frac{4}{9}$  of 27 = 12

*Accept minimally acceptable explanation, eg:*

- $\frac{3}{9}$

- $\frac{9}{27}, \frac{12}{27}$
- 4 is over a third of 9
- $\frac{1}{3}$  of 9 is 3
- $\frac{4}{9}$  is closer to a half than a third
- 0.33, 0.44
- It is one ninth bigger
- If you divide  $\frac{4}{9}$  by a  $\frac{1}{3}$  you get  $\frac{4}{3}$
- $\frac{4}{12}$

*! Inaccuracies in diagrams*

*Throughout the question, condone provided the pupil's intention to divide into thirds, ninths and/or eighteenths is clearly shown, and the correct sections are shaded*

*! Indicates **No**, or no decision made, but explanation clearly correct*

*Condone provided the explanation is more than minimal*

**Do not accept** incomplete or incorrect explanation, eg:

- If you draw a pie chart for  $\frac{4}{9}$ , more than  $\frac{1}{3}$  is shaded
- Put them into 27ths and  $\frac{4}{27} > \frac{1}{27}$
- $\frac{1}{3} \times 3 = \frac{3}{9}$

1  
U1

(b) Indicates **No** and gives a correct explanation, eg:

- The fractions are equal; if you multiply the numerator and denominator by the same number the fractions are equivalent
- $\frac{4}{9} = \frac{8}{18}$
- $\frac{4}{9} \times 2 = \frac{8}{9}$  not  $\frac{8}{18}$
- $\frac{8}{18} \div 2 = \frac{4}{18}$  which is  $\frac{2}{9}$  not  $\frac{4}{9}$
- To double the fraction, you don't double the numerator and the denominator, you just double the numerator
- To halve the fraction, you don't halve the denominator, only the numerator  
*Accept minimally acceptable explanation, eg:*
  - Equal
  - Equivalent

- Same
  - $\frac{4}{9}$  is half of  $\frac{8}{9}$
  - $\frac{4}{18}$  is half of  $\frac{8}{18}$
  - You only double the top number
  - You only halve the top number
- ! Indicates **Yes**, or no decision made, but explanation clearly correct*

*Condone provided the explanation is more than minimal*

**Do not accept** Incomplete explanation, eg

- If you double the top and the bottom number of

- $\frac{4}{18}$  is half of  $\frac{8}{18}$  ,  
you get  $\frac{4}{9}$  is half of  $\frac{8}{9}$

1  
U1

[2]

### Q10.

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:*

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

[1]

**Q11.**

Award **TWO** marks for the correct answer of 220

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg

$$275 \div 5 \times 4$$

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

Up to 2

[2]