

This test is divided into non-calculator (30 marks/minutes) and calculator (30 marks/minutes) sections which can be delivered separately.


The following marks are awarded for each question.

B	Unconditional accuracy mark
M	Method mark – the correct method must be shown, but there may be an arithmetic error; the sight of the value given in brackets implies the award of the method mark
A	Accuracy mark – unless the question specifies that working must be shown, then the sight of the correct answer implies the award of full marks (unless the answer clearly comes from incorrect working)
C	Communication mark
P	Process mark – to show the correct process for problem solving. Any other process of a similar standard to achieve an accurate result is acceptable to achieve this mark
FT	Incorrect values may be followed through from one step to the next, provided that the correct method is seen in each step and the only errors are arithmetic. This is shown in mark schemes by putting a number in inverted commas
OE	Or equivalent answer mark

Non-Calculator			
Q	Answer	Mark	Comment
1	Geography with $\frac{68}{100}$ or 68% & 67%	M1	$\frac{34}{50} = \frac{68}{100}$ or 68% or $\frac{34}{50}$ and $\frac{33.5}{50}$
		A1	
2	45(%)	M1	$\frac{9}{20} \times 100$ OE, e.g. 5×9
		A1	


3	924 (metres)	M1	a correct method to find 10% of 840 or sight of 84, e.g. $840 \div 10$ OE, e.g. $\frac{10}{100} \times 840$
		M1	840 + "84", "84" must come be correct or come from correct workin; M2 for 1.1×840
		A1	
4	£4.80 or 480 p	M1	$\frac{20}{100} \times 6$ (or 600) OE £1.2(0) units not essential but must be convincing what they are working in
		M1	M1 6 – "1.2(0)" or 600 – "120", "1.2(0)" or "120" must be correct or come from correct working; M2 for 0.8×6
		A1	do not accept 4.8 or 480 with no units
5	$\frac{13}{15}$	M1	$\frac{6}{15} + \frac{7}{15}$ OE, e.g. $\frac{30}{75} + \frac{35}{75}$
		A1	
6	$\frac{4}{11}$	B1	
7	$\frac{3}{7}$ from correct working	M1	two equivalent fractions, e.g. $\frac{15}{35}, \frac{14}{35}$ or for 15 squares and 14 squares shaded
		A1	
8	140 (cm)	M1	$(350 \div 5) \times 2$ OE
		A1	
9	0.3, 30% $\frac{23}{100}, 23\%$ $\frac{7}{100}, 0.07$	B3	B3 for all correct; B2 for four or five correct; B1 for two or three correct)

10	$\frac{20}{27}$	M1	$\frac{2}{3} \times \frac{10}{9}$ OE
		A1	
11	$3\frac{3}{10}$	M1	$\frac{3}{2} \times \frac{11}{5}$
		M1	$\frac{33}{10}$
		A1	

 Calculator			
Q	Answer	Mark	Comment
12	14(%)	M1	$\frac{42}{300}$ OE
		A1	
13	First card, OE, and 70.27 and 69.48 and 70	B1	70.27
		P1	correct method to get 69.48, e.g. 0.72×96.5
		P1	correct method to get 70, e.g. $112 \div 8 \times 5$
		C1	
14a	£43.75	M1	$\frac{1.75}{100} \times 2500$ OE
		A1	
14b	4	M1	$160 \div \text{"43.75"} \text{ or } \text{"43.75"} \times 1.75^3$
		A1	
15	(\$)427.8(0)	M1	$7 \div 100 \times 460 (= 32.2(0))$ OE
		M1	$460 - \text{"32.2(0)"}; \text{ M2 for } 0.93 \times 460$
		A1	
16	$0.615, \frac{5}{8}, 0.63, 65\%, \frac{2}{3}$	M2	65, 61.5, 66.(66...), 63, 62.5 or 0.65, 0.615, 0.66(6..) OE, 0.63, 0.625 M2 for all written as decimals or percentages; M1 for one of $\frac{2}{3}$ or $\frac{5}{8}$ written as a decimal or percentage
		A1	A1 all in the correct position; can have these in any form as long as correct

17	No with 1170 and 1200 or No with 1.17	P1	use of 1000 ml in a litre
		P1	$350 + 500 + 320$ (could work in litres)
		A1	for 1170 or 1.17(0)
		C1	dep on P2 FT
18	$3\frac{1}{15}$	M1	students should show little method as they should do this on the calculator $3\frac{6}{15} - \frac{5}{15}$ or $\frac{81}{15} - \frac{35}{15}$ or $\frac{46}{15}$ OE improper fraction
		A1	
19	Abigail with the correct figures of 9.62 and 9.66	M1	$\frac{4}{100} \times 9.25 (= 0.37)$ OE or $1.04 \times 9.25 (= 9.62)$
		M1	$9.20 \div 20 (= 0.46)$ OE
		M1	for complete method for Pedro, e.g. $9.25 + \frac{4}{100} \times 9.25 (= 9.62)$ e.g. $1.04 \times 9.25 (= 9.62)$ and complete method for Abigail, e.g. $9.20 + 9.20 \div 20$
		A1	

Non-Calculator			
Question	Topic	Step	Mark
1	Recognise the equivalence of percentages, fractions and decimals	3rd	2
2	Express one given number as a percentage of another	4th	2
3	Find a percentage of a quantity using a multiplier	4th	3
4	Find a percentage of a quantity using a multiplier	4th	3
5	Add and subtract fractions – proper and improper, positive and negative	6th	2
6	Add and subtract fractions – proper and improper, positive and negative	6th	1
7	Order fractions, decimals and percentages	4th	2
8	Use knowledge of equivalence between fractions and percentages and mental strategies to solve problems involving the calculation of percentages, including amounts of money and other measures	5th	2
9	work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and $\frac{7}{2}$ or 0.375 or $\frac{3}{8}$), Use strategies for finding equivalent fractions, decimals and percentages involving decimal percentages and decimals greater than 0	5th	3
10	Multiply and divide simple fractions (mixed) - positive and negative	8th	2
11	Multiply and divide simple fractions (mixed) - positive and negative	8th	3

 Calculator			
Question	Topic	Step	Mark
12	Express one quantity as a percentage of another, Solve simple problems involving units of measurement in the context of length and area	5th	2
13	Calculate simple fractions of quantities and measurements (whole-number answers), Find a percentage of a quantity using a multiplier	4th	4
14a	Compare two quantities using percentages, including a range of calculations and contexts	6th	2
14b	Compare two quantities using percentages, including a range of calculations and contexts	6th	1
15	Use percentages in real-life situations: VAT, value of profit or loss, simple interest, income tax calculations	6th	3

16	Use strategies for finding equivalent fractions, decimals and percentages involving decimal percentages and decimals greater than 0	6th	3
17	Compare two quantities using percentages, including a range of calculations and contexts	6th	4
18	Add and subtract fractions – proper and improper, positive and negative	6th	2
19	Solve problems involving percentage change, Convert a fraction to a decimal to make a calculation easier	6th	4

Marks to Steps conversion table

The table below converts marks to a step on the Pearson progression scale. For more information on the progression service please see the [progression website](#).

Mark	Step
0	U
1	1st Step
2–4	2nd Step
5–11	3rd Step
12–20	4th Step
21–29	5th Step
30–37	6th Step
38–43	7th Step
44–50	8th Step