

Qu	Give one mark for each •	Illustrations for awarding mark
1	ans : not enough; $135 < 145$ 3 marks <ul style="list-style-type: none"> •¹ finds interest after 1 year •² finds interest after 9 months •³ valid conclusion 	<ul style="list-style-type: none"> •¹ 4.5% of £4 500 = £180 •² $0.75 \times 180 = £135$ •³ not enough since $135 < 145$
2	ans : 79.5 3 marks <ul style="list-style-type: none"> •¹ orders data •² knows median is middle value •³ answer 	<ul style="list-style-type: none"> •¹ 75, 75, 77, 77, 77, 79, 80, 82, 83, 83, 89, 91 •² evidence •³ $(79 + 80) \div 2 = 79.5$
3	ans : $y = 3$ 2 marks <ul style="list-style-type: none"> •¹ rearranges sides •² solves for y 	<ul style="list-style-type: none"> •¹ $6y = 18$ •² $y = 3$
4a	ans : 5, 4, 2, 1 2 marks <ul style="list-style-type: none"> •¹ any two entries correct •² remaining two entries correct 	<ul style="list-style-type: none"> •¹ 5, 4 •² 2, 1
b	ans: graph drawn 2 marks <ul style="list-style-type: none"> •¹ points plotted •² points joined to form straight line 	<ul style="list-style-type: none"> •¹ see graph •² see graph
c	ans: (4, 0) 1 mark <ul style="list-style-type: none"> •¹ reads coordinates from graph 	<ul style="list-style-type: none"> •¹ (4, 0)
5a	ans : 7.7 3 marks <ul style="list-style-type: none"> •¹ finds total frequency •² completes column and finds total visits •³ divides to find mean 	<ul style="list-style-type: none"> •¹ 30 •² 49, 80, 54, 20, 230 •³ $230 \div 30 = 7.7$
b	ans: about the same/just less 1 mark <ul style="list-style-type: none"> •¹ value comparison 	<ul style="list-style-type: none"> •¹ about the same/ just less
6	ans : 4.65×10^5 3 marks <ul style="list-style-type: none"> •¹ knows to multiply by 31 •² correct $1 < a < 10$ •³ correct power of ten 	<ul style="list-style-type: none"> •¹ $1.5 \times 10^4 \times 31$ •² $4.65 \times \dots\dots$ •³ $\dots\dots 10^5$
7	ans : £32.16 2 marks <ul style="list-style-type: none"> •¹ chooses correct premium from table •² multiplies to answer 	<ul style="list-style-type: none"> •¹ £5.36 •² $£5.36 \times 6 = £32.16$

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8	ans : not enough; £35.60 needed 4 marks <ul style="list-style-type: none"> •¹ finds unitary cost . •² correct number of people considered •³ finds cost for 8 •⁴ valid conclusion for working 	<ul style="list-style-type: none"> •¹ $£22.50 \div 5 = £4.45$ •² $\times 8$ •³ $£4.45 \times 8 = £35.60$ •⁴ not enough since £35.60 needed
9a	ans : 0850 3 marks <ul style="list-style-type: none"> •¹ knows to find time taken •² finds time •³ subtracts to answer 	<ul style="list-style-type: none"> •¹ $T = D/S$ or $97.5/65$ •² 1.5 hours or 1 hour 30 mins •³ $1020 - 1 \text{ hour } 30 \text{ mins} = 0850$
b	ans: 157.5km 3 marks <ul style="list-style-type: none"> •¹ changes time to a decimal •² knows how to find distance •³ answer 	<ul style="list-style-type: none"> •¹ $\times 2.25$ •² 70..... •³ 157.5km
10a	ans : £510 1 mark <ul style="list-style-type: none"> •¹ subtracts to answer 	<ul style="list-style-type: none"> •¹ $£1\ 150 - 640 = £510$
b	ans: 44% 4 marks <ul style="list-style-type: none"> •¹ makes up correct fraction •² knows to multiply by 100% •³ answer •⁴ correct rounding 	<ul style="list-style-type: none"> •¹ 510/1150 •² $\times 100\%$ •³ 44.347..... •⁴ 44%
11	ans : no; circle is longer by 9.1m 6 marks <ul style="list-style-type: none"> •¹ knows to find circumference of circle . •² answer •³ knows to use Pythagoras' •⁴ finds length of hypotenuse •⁵ finds perimeter of right triangle •⁶ valid conclusion with reason 	<ul style="list-style-type: none"> •¹ $C = \pi \times 150$ •² 471.2m •³ $120^2 + 150^2$ [or other evidence] •⁴ 192.1m •⁵ $192.1 + 120 + 150 = 462.1\text{m}$ •⁶ no, circle is longer by 9.1m
12	ans : 2.9 3 marks <ul style="list-style-type: none"> •¹ substitutes values •² evaluates term under square root •³ answer 	<ul style="list-style-type: none"> •¹ $I = \sqrt{(100 \div 12)}$ •² $I = \sqrt{8.333333.....}$ •³ 2.9
13	ans : 42° 4 marks <ul style="list-style-type: none"> •¹ knows to use SOH CAH TOA . •² chooses correct ratio •³ finds ratio •⁴ takes inverse to find angle 	<ul style="list-style-type: none"> •¹ evidence •² $\sin = \dots\dots\dots$ •³ = $2.9/4.3$ •⁴ 42°
		Total 50 marks