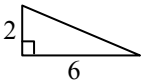


Qu	Give one mark for each •	Illustrations for awarding mark
1	ans : £16.05 3 marks • ¹ knows how to find percentage • ² calculates percentage • ³ adds to original cost	• ¹ $7/100 \times 15$ • ² 1.05 • ³ £16.05
2a	ans : 172.8 3 marks • ¹ substitutes values • ² evaluates numerator correctly • ³ completes evaluation	• ¹ $120(24)^2/400$ • ² 69 120 • ³ 172.8
3	ans : 2.1; 2.9 2 marks • ¹ identifies median • ² calculates range	• ¹ 2.1 • ² 2.9
4a	ans : 512 mm ³ 2 marks • ¹ knows how to find volume • ² finds volume	• ¹ $8 \times 8 \times 8$ • ² 512 mm ³
b	ans: 17 cubes 3 marks • ¹ finds volume of cuboid • ² knows to divide • ³ answer	• ¹ $20 \times 15 \times 30 = 9\,000$ • ² $9\,000 \div 512 =$ • ³ 17 cubes
5	ans : 9.15am 4 marks • ¹ substitutes into correct formula • ² finds number of hours • ³ changes to hours and minutes • ⁴ answer	• ¹ $T = D/S$ or $T = 180/80$ • ² 2.25 hours • ³ 2 hours 15 minutes • ⁴ $11.30 - 2\text{ h }15\text{ m} = 9.15\text{am}$
6	ans : £2440 4 marks • ¹ knows to calculate total cost • ² calculates total cost • ³ calculates cost of payments • ⁴ calculates balance to pay	• ¹ $(24 \times 190) + 1000$ • ² £5560 • ³ $36 \times 140 = £5040$ • ⁴ $5560 - 5040 = £520$
7	ans : 86.1cm ² 4 marks • ¹ finds area of rectangle • ² uses correct radius • ³ finds area of semicircle • ⁴ finds total area	• ¹ $6 \times 12 = 72\text{cm}^2$ • ² $r = 3\text{cm}$ [may be substituted in formula] • ³ $0.5 \times 3.14 \times 3^2 = 14.1$ • ⁴ 86.1cm ²

Qu	Give one mark for each •	Illustrations for awarding mark
8a	ans : -4, -2, 0 2 marks	<ul style="list-style-type: none"> •¹ -4, -2..... •² 0
	<ul style="list-style-type: none"> •¹ any 2 entries correct •² third entry correct 	
	<p>b ans: graph drawn 2 marks</p> <ul style="list-style-type: none"> •¹ correct intercepts •² correct line 	
c	ans: (0, -3) 1 mark	<ul style="list-style-type: none"> •¹ (6, 0) and (0, -3) •² straight line drawn
	<ul style="list-style-type: none"> •¹ identifies intersection with y - axis 	
9a	ans : 7.256×10^4 2 marks	<ul style="list-style-type: none"> •¹ 7.256..... •²$\times 10^4$
	<ul style="list-style-type: none"> •¹ correct number •² correct power of 10 	
b	ans: 871 000 3 marks	<ul style="list-style-type: none"> •¹ 72560×12 •² 870 720 •³ 871 000
	<ul style="list-style-type: none"> •¹ knows to multiply •² finds answer •³ rounds correctly 	
10	ans : £64.35 5 marks	 <ul style="list-style-type: none"> •¹ assembles info in right-angled triangle •² knows to use Pythagoras •³ finds unknown length •⁴ finds total length and number of lengths •⁵ calculates cost
11	ans : 9.775 e-mails 3 marks	<ul style="list-style-type: none"> •¹ $6^2 + 2^2 = 40$ •² 6.32..... •³ total = $10 + 8 + 6.32 = 24.32..$; 13 lengths •⁴ $13 \times \text{£}4.95 = \text{£}64.35$
	<ul style="list-style-type: none"> •¹ completes last column •² finds total •³ finds mean 	
12	ans : 4.9° 4 marks	<ul style="list-style-type: none"> •¹ 5, 12, 28, 104, 198, 130, 99, 72, 78, 56 •² 782 and 80 •³ 9.775 e-mails
	<ul style="list-style-type: none"> •¹ knows to use sine ratio •² finds value for $\sin x$ •³ knows to take inverse •⁴ finds angle 	
13a	ans : 45km 1 mark	<ul style="list-style-type: none"> •¹ evidence •² $\sin x = 0.3/3.5$ •³ $\sin^{-1}x = \dots\dots$ •⁴ 4.9°
	<ul style="list-style-type: none"> •¹ reads distance from graph 	
b	ans : Sanjay 1 mark	<ul style="list-style-type: none"> •¹ 45km
	<ul style="list-style-type: none"> •¹ correctly interprets graph 	
c	ans: 20 mins 1 mark	<ul style="list-style-type: none"> •¹ Sanjay
	<ul style="list-style-type: none"> •¹ correctly interprets graph 	
d	ans: 30mph 1 mark	<ul style="list-style-type: none"> •¹ 20 mins
	<ul style="list-style-type: none"> •¹ answer 	
		Total 51 marks