

Qu	Give one mark for each •	Illustrations for awarding mark
1a	ans : 22.19 • ¹ answer	1 mark • ¹ 22.19
b	ans : £73.50 • ¹ answer	1 mark • ¹ £73.50
c	ans: 48 • ¹ answer	1 mark • ¹ 48
d	ans: 1.53 • ¹ answer	1 mark • ¹ 1.53
2	ans : £42 • ¹ realises cost is for 4 people • ² finds cost per person • ³ multiplies to find total	3 marks • ¹ £24 ÷ 4 • ² £6 • ³ £6 × 7 = £42
3a	ans : -7, -3, 1, 5 • ¹ two entries correct • ² further two entries correct	2 marks • ¹ -7, -3, • ², 1, 5
b	ans: points plotted • ¹ all points plotted and joined	1 mark • ¹ see pupil's diagram
c	ans: (0, -3) • ¹ identifies y-intercept	1 mark • ¹ (0, -3)
4a	ans : 1500 • ¹ takes appropriate reading from graph	1 mark • ¹ 1500
b	ans : more visitors at weekend • ¹ any appropriate comment	1 mark • ¹ more visitors over weekends
5	ans : 7.55am • ¹ finds total travel time • ² knows to subtract time • ³ answer	3 marks • ¹ 1 hour 55 mins + 25 mins = 2 hrs 20mins • ² 10.15 – 2 hrs 20 mins • ³ 7.55am

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1a	ans : 3, 7, 2, 3, 3, 3, 2 marks <ul style="list-style-type: none"> •¹ using tally marks •² completing frequency column 	<ul style="list-style-type: none"> •¹ evidence in table •² 3, 7, 2, 3, 3, 3
b	ans: 2/21 2 marks <ul style="list-style-type: none"> •¹ correct numerator •² correct denominator 	<ul style="list-style-type: none"> •¹ 2/..... •² /21
2	ans : computers 'R' us is best deal 3 marks <ul style="list-style-type: none"> •¹ finds VAT •² adds VAT •³ valid conclusion with reason 	<ul style="list-style-type: none"> •¹ 17.5% of £750 = £131.25 •² £750 + £131.25 = £881.25 •³ Computers 'R' Us is lesser amount
3	ans : 2.592×10^6 secs 3 marks <ul style="list-style-type: none"> •¹ knows to multiply by 30 •² answer •³ answer in standard form 	<ul style="list-style-type: none"> •¹ $8.64 \times 10^4 \times 30$ •² 2592000 seconds •³ 2.592×10^6
4	ans : £52.50 2 marks <ul style="list-style-type: none"> •¹ knows to multiply premium by 15 •² answer 	<ul style="list-style-type: none"> •¹ $15 \times £3.50$ •² £52.50
5	ans : 40 3 marks <ul style="list-style-type: none"> •¹ finds required angle •² knows to find fraction of total •³ answer 	<ul style="list-style-type: none"> •¹ $360^\circ - (210 + 75 + 30)^\circ = 45^\circ$ •² 45/360 of 320 (or equivalent) •³ 40
6	ans : $m = 5$ 3 marks <ul style="list-style-type: none"> •¹ starts to rearrange equation •² completes rearrangement •³ solves for 'm' 	<ul style="list-style-type: none"> •¹ $3m - 4 = 11$ •² $3m = 15$ •³ $m = 5$
7	ans : circular cake/larger area 4 marks <ul style="list-style-type: none"> •¹ finds area of rectangle •² knows how to find area of circle •³ answer •⁴ valid conclusion with reason 	<ul style="list-style-type: none"> •¹ $30 \times 20 = 600\text{cm}^2$ •² $A = \pi \times 14^2$ •³ 616cm^2 (to nearest cm^2) •⁴ circular cake/larger area since $616 > 600$
8	ans : $f \leq 7$ 2 marks <ul style="list-style-type: none"> •¹ starts to rearrange equation •² solves for 'f' 	<ul style="list-style-type: none"> •¹ $5f \leq 35$ •² $f \leq 7$

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9	ans : 11.5cm 3 marks <ul style="list-style-type: none"> •¹ knows to use tangent •² uses ratio correctly •³ answer 	<ul style="list-style-type: none"> •¹ $\tan 30^\circ = 1/20$ •² $l = 20 \tan 30^\circ$ •³ 11.5cm
10	ans : 10 3 marks <ul style="list-style-type: none"> •¹ substitutes values correctly •² evaluates numerator and denominator •³ answer 	<ul style="list-style-type: none"> •¹ $W = (10\sqrt{2} \cdot 56) \div 4 \times 0.4$ •² $16 \div 1.6$ •³ 10
11	ans : 9.2m 5 marks <ul style="list-style-type: none"> •¹ identifies rt.triangle knows to use Pyth. •² finds horizontal distance •³ finds vertical distance •⁴ calculates BC •⁵ finds total length 	<ul style="list-style-type: none"> •¹ identifies rt.triangle and evidence of Pyth. •² $9 - (2.4 + 3.6) = 3\text{m}$ •³ $2.4 - 1.4 = 1$ •⁴ $\sqrt{(3^2 + 1^2)} = 3.2\text{m}$ •⁵ $3.6 + 2.4 + 3.2 = 9.2\text{m}$
12	ans : 35 minutes 4 marks <ul style="list-style-type: none"> •¹ knows to find time for walking •² answer •³ changes hours to hours and minutes •⁴ finds time difference 	<ul style="list-style-type: none"> •¹ time = 5/4 •² 1.25 hours •³ 1 hour 15 minutes •⁴ 35 minutes
13	ans : 91.9% 4 marks <ul style="list-style-type: none"> •¹ knows to construct fraction •² knows to multiply by 100% •³ answer •⁴ correct rounding 	<ul style="list-style-type: none"> •¹ 1240/1350... •² ... $\times 100\%$ •³ 91.851851..... •⁴ 91.9%
14	ans : 14 hours 4 marks <ul style="list-style-type: none"> •¹ finds basic wage •² finds overtime wage •³ finds overtime rate •⁴ divides to answer 	<ul style="list-style-type: none"> •¹ $\pounds 5.70 \times 30 = \pounds 171$ •² $\pounds 330.60 - \pounds 171 = \pounds 159.60$ •³ $\pounds 5.70 \times 2 = \pounds 11.40$ •⁴ $\pounds 159.60 \div 11.40 = 14 \text{ hours}$
15	ans : ramp is OK 3 marks <ul style="list-style-type: none"> •¹ knows to use cosine •² uses inverse to find angle •³ valid conclusion with reason 	<ul style="list-style-type: none"> •¹ $\cos x^\circ = 15/16.5$ •² $x^\circ = \cos^{-1}(15/16.5) = 24.6^\circ$ •³ ramp is OK since 24.6° is between 24° & 26°
		Total 50 marks