
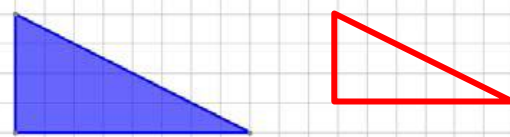
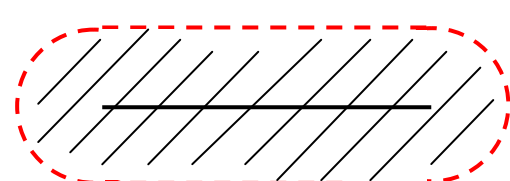


Yr 8 Level 7 Practice Assessment		Answers		
A	Numbers & the number system	Answer	Mark	Criteria
1(a)	To decrease 70 by 3%	<u>70 x 0.97</u>	1	1
1(b)	Choose a different calculation Write a question	<ul style="list-style-type: none"> 70 x 0.03 (What is 3% of 70 OR What is 70 decreased by 97%?) 70 x 1.3 (What is 70 increased by 30%?) 70 x 1.03 (What is 70 increased by 3%?) 	1	1
B	Calculating		Mark	Criteria
2	Multiplier for 3% increase	£5400 x 1.03 = £5562	1	2
3	a) Missing number	0.1 x 400 = 40	1	3
	b) Missing number	4 ÷ 0.4 = 10	1	
4	Estimate $\frac{75.1 \times 8.3}{63.2 + 3.52}$	$\frac{80 \times 8}{60 + 4} = \frac{640}{64} = \mathbf{10}$	1	4
5	Work out: $\frac{3.54^2}{6.2 \times 1.5}$	$\frac{12.5316}{9.3} = \mathbf{1.347483871}$	1	5
C	Algebra		Mark	Criteria
6	Table of values for: $y = x^3$ Graph	<p>-1 8</p> <p>Smooth 'S' shape curve passing through origin</p> 	1 points Graph 1 1	11
D	Shape, Space and Measure		Mark	Criteria
7	Use Pythagoras to find length	$7.5^2 - 6^2$ $= 56.25 - 36$ $= 20.25$ $\sqrt{20.25} = \mathbf{4.5m}$	1 1	
8	Find volume of prism	Area of cross-section = $(a + b) \times h \div 2$ $= (1.9 + 1.3) \times 0.7 \div 2$ $= 1.12m^2$ Volume = $1.12 \times 2.5 = \mathbf{2.8m^3}$	1 1	13
9	Enlarge by sf 3/4		1	14
10	Perpendicular bisector		1	15

		Inside red outline shaded	1													
11	a) Smallest b) Largest	24.5 kg 25.5 kg	1 1	16												
12	a) Work out distance b) Work out time	Distance = Speed x time = $20\text{km/h} \times \frac{1}{4}\text{h}$ = 5km Time = $\frac{\text{Distance}}{\text{Speed}}$ = $\frac{95\text{km}}{20\text{km/h}}$ = 4.75h = 4hours 45min	1 1	17												
E	Data Handling		Mark	Criteria												
13	Criticise a questionnaire Criticise sample	1. Responses to vague 2. No time span 1. Too small a sample 2. Narrow range – just teachers – biased outcome	1 1 1 1	18												
14	Plot 3 points Describe correlation Estimate minutes for 10g	(30,20) (35,15) (35,12) Negative ~35min with a line of best fit	1 1 1	19												
15	a) Modal class b) Estimate mean	$10 < t \leq 20$ <table border="1" data-bbox="619 1137 1206 1402"> <thead> <tr> <th>Mid class interval</th> <th>Totals</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>$5 \times 6 = 30$</td> </tr> <tr> <td>15</td> <td>$15 \times 11 = 165$</td> </tr> <tr> <td>25</td> <td>$25 \times 8 = 200$</td> </tr> <tr> <td>35</td> <td>$35 \times 5 = 175$</td> </tr> <tr> <td></td> <td>Total = 570</td> </tr> </tbody> </table> Est mean = $570 \div 30 = \mathbf{19\text{ min}}$	Mid class interval	Totals	5	$5 \times 6 = 30$	15	$15 \times 11 = 165$	25	$25 \times 8 = 200$	35	$35 \times 5 = 175$		Total = 570	1 1	20
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16	a) Girls Range Boys Range b) Girls median Boys Median Comparison	$72-40 = \mathbf{32kg}$ $81-56 = \mathbf{25kg}$ 58kg 67kg Range shows girls' weights are more spread out Median shows boys are heavier in general	1 1 1	21												
17	a) Relative frequency b) Number of red cars	$\frac{5}{50}$ or $\frac{1}{10}$ No. of red cars = 0.2×50 = 10	1 1	22												

18	Compare two polygons for heights of boys and girls	Boys are generally taller than boys Reason: The line for boys heights are above the girls at the right(greater heights)	1 1	23
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