

Yr 8 Level 8 Practice Assessment		Answers																
A	Numbers & the number system	Answer	Mark	Criteria														
1(a)	$\frac{7}{15}$ as decimal	$7 \div 15 = \underline{0.46}$	1	1														
1(b)	0.12121212... as fraction	Let $x = 0.1212121212\dots$ $100x = 12.1212121212\dots$ $99x = 12$ $x = \frac{12}{99} = \frac{4}{33}$	1	1														
B	Calculating		Mark	Criteria														
2(a)	£35000 depreciation @ 15% after 3years	$\text{£}35000 \times 0.85^3 = \text{£}21494.38$	1	2														
2(b)	Increased by 4% to £1.56 Find original	$\text{£}1.56 \div 1.04 = \text{£}1.50$	1															
3(a)	a)(i) 0.000043 in standard form	$4.3 \times 10^{-5}$	1	3														
	(ii) $7 \times 10^4$ as ordinary number	70000	1															
	b) $3.25 \times 10^5 \times 2.4 \times 10^{-1}$	$7.8 \times 10^4$	1															
Shape, Space and Measure			Mark	Criteria														
4 (a)	Are two triangles congruent Explain	Yes Reason: ASA – $88^\circ$ , 63mm , $32^\circ$	1	11														
4 (b)	Work out angle x	$107^\circ$	1															
	Work out length y	Scale factor = $10 \div 6 = 1\frac{2}{3}$	1															
		$y = 9 \times 1\frac{2}{3} = 15\text{cm}$	1															
5 (a)	Calculate length of side AB using trigonometry (3sf)	$\sin 38^\circ = \frac{AB}{8.5}$ $AB = 8.5 \times \sin 38^\circ$ $= 5.23\text{cm}$	2	12														
5 (b)	Calculate size of angle x using trigonometry (1dp)	$\tan x = \frac{5}{12.5}$ $x = 21.8$	2															
Data Handling			Mark	Criteria														
6 (a)	Complete cf table	<table border="1"> <thead> <tr> <th>Speed (s mph)</th> <th>cf</th> </tr> </thead> <tbody> <tr> <td><math>40 &lt; s \leq 50</math></td> <td>4</td> </tr> <tr> <td><math>40 &lt; s \leq 60</math></td> <td>23</td> </tr> <tr> <td><math>40 &lt; s \leq 70</math></td> <td>57</td> </tr> <tr> <td><math>40 &lt; s \leq 80</math></td> <td>84</td> </tr> <tr> <td><math>40 &lt; s \leq 90</math></td> <td>98</td> </tr> <tr> <td><math>40 &lt; s \leq 100</math></td> <td>100</td> </tr> </tbody> </table>	Speed (s mph)	cf	$40 < s \leq 50$	4	$40 < s \leq 60$	23	$40 < s \leq 70$	57	$40 < s \leq 80$	84	$40 < s \leq 90$	98	$40 < s \leq 100$	100	1	14
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6 (b)	Draw cf graph		1	
6 (c)	Estimate median	Median $\approx$ 57mph	1	
6 (d)	Estimate interquartile range	Upper Quartile = 76 Lower quartile = 61 Interquartile range = 76-61 = <b>15 workers</b>	2	