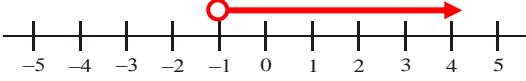


Yr 7 Level 7 Practice Assessment		Answers		
A	Numbers & the number system	Answer	Mark	Criteria
1	a) Missing number	$0.1 \times 400 = 40$	1	3
	b) Missing number	$4 \div 0.4 = 10$	1	
2	Estimate 75.1×8.3 $63.2 + 3.52$	$80 \times 8 = 640 = 10$ $60 + 4 = 64$	1	4
3	Work out: $\frac{3.54^2}{6.2 \times 1.5}$	$\frac{12.5316}{9.3} = 1.347483871$	1	5
C	Algebra		Mark	Criteria
4	Expand $(x - 7)(x + 1)$	$x^2 + 1x - 7x - 7$ $= x^2 - 6x - 7$	1 1	6
5	Solve: $3x + 2y = 12$ $4x - y = 5(x2)$	$3x + 2y = 12$ $8x - 2y = 10$ Add: $11x = 22$ $x = 2$	1	7
		Substitute: $6 + 2y = 12$ $2y = 6$ $y = 3$	1	
6	Solve $2(x + 3) > 4$ Represent on number line	$2x + 6 > 4$ $2x > -2$ $x > -1$	1 1	8
				
7	$F = \frac{3(a + b)}{4}$ Find F when $a = 4$ and $b = -12$	$F = \frac{3(4 + -12)}{4}$ $F = \frac{3 \times -8}{4}$ $= -6$	1	9
8	-3, 0, 5, 12, 21, ... Find nth term	1 st difference: 3, 5, 7, 9 2 nd difference: 2 n^2 : 1, 4, 9, 16, 25 Then (-4) from n^2 gives -3, 0, 5, 12, 21 So nth term $T(n) = n^2 - 4$	1 1	10
9	a) Smallest	24.5 kg	1	16
	b) Largest	25.5 kg	1	
E	Data Handling		Mark	Criteria
10	Criticise a questionnaire	1. Responses too vague 2. No time span	1 1	18
	Criticise sample	1. Too small a sample 2. Narrow range – just teachers – biased outcome	1 1	
				19

11	a) Modal class	$10 < t \leq 20$ <table border="1" style="margin-left: 20px;"> <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>	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	20
	Mid class interval	Totals														
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15	$15 \times 11 = 165$															
25	$25 \times 8 = 200$															
35	$35 \times 5 = 175$															
	Total = 570															
b) Estimate mean	Est mean = $570 \div 30 = 19 \text{ min}$	1														
				21												
12	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													
13	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												
14	a) Girls Range Boys Range b)Girls median Boys Median Comparison	$72-40 = 32\text{kg}$ $81-56 = 25\text{kg}$ 58kg 67kg	1 1 1													