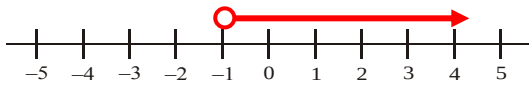
Yr 7 FFX 4/5 Practice Assessment Answers

A	Numbers & the number system	Answer	Mark	Criteria
1	a)Missing number b) Missing number	**0.1 x 400** = 40 **4 ÷ 0.4** = 10	1 1	3
2	Estimate $\frac{75.1 \times 8.3}{63.2+3.52}$	$\frac{80 \times 8}{60+4} = \frac{640}{64} =$ **10**	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 Substitute: 6 + 2y = 12 2y = 6 y = 3	 1 1	7
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	1st difference : 3, 5, 7, 9 2nd 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 b) Largest	24.5 kg 25.5 kg	1 1	16
E	**Data Handling**		**Mark**	**Criteria**
10	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
				19

<table>
<tr><td>11</td><td>a) Modal class

b) Estimate mean</td><td>10 < t ≤ 20
<table><tr><td>Mid class interval</td><td>Totals</td></tr><tr><td>5</td><td>5 x 6 = 30</td></tr><tr><td>15</td><td>15 x 11 = 165</td></tr><tr><td>25</td><td>25 x 8 = 200</td></tr><tr><td>35</td><td>35 x 5 = 175</td></tr><tr><td></td><td>Total = 570</td></tr></table>
Est mean = 570 ÷ 30 = <u>19 min</u></td><td>1

1

1</td><td>20</td></tr>
<tr><td></td><td></td><td></td><td></td><td>21</td></tr>
<tr><td>12</td><td>Plot 3 points
Describe correlation
Estimate minutes for 10g</td><td>(30,20) (35,15) (35,12)
Negative
~35min with a line of best fit</td><td>1
1
1</td><td></td></tr>
<tr><td>13</td><td>Compare two polygons for heights of boys and girls</td><td>Boys are generally taller than boys

Reason: The line for boys heights are above the girls at the right(greater heights)</td><td>1

1</td><td>23</td></tr>
<tr><td>14</td><td>a) Girls Range
Boys Range
b)Girls median
Boys Median

Comparison</td><td>72-40 = 32kg
81-56 = 25kg
58kg
67kg

Range shows girls’ weights are more spread out
Median shows boys are heavier in general</td><td>1

1

1</td><td></td></tr>
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