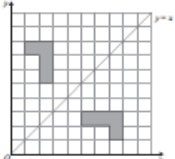
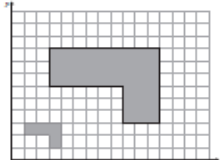




PiXL Edexcel Practice Paper 2 June 2015 – Foundation Mark Scheme

Q	Working		Answer	Mark	Notes
1	(a)(i)		cuboid	3	B1 (accept rectangular prism)
	(ii)		sphere		B1 (ignore spelling)
	(iii)		pyramid		B1 accept tetrahedron, (triangular based) pyramid
	(b)	5×2	10	1	B1 cao
2	(a)		Certain	1	B1 accept likely
	(b)		Even chance	1	B1 accept evens
	(c)		Impossible	1	B1 cao
3	(a)		25	1	B1 cao
	(b)		1.8	1	B1 accept -1.8 or ± 1.8 or $\frac{9}{5}$ or $1\frac{4}{5}$
4	(a) (i)		18	2	B1 cao
	(ii)		-6		B1 cao
	(b)		-3	1	B1 for -3 (accept 6 am)
	(c)		5	1	B1 for 5, -5 or +5
5		$180+40$ or $360-(180-40)$	220	2	M1 for $180+40$ or $360-(180-40)$ A1 cao
6	(a)		$\frac{6}{11}$	1	B1 any equivalent fraction to $\frac{6}{11}$ (Accept 0.054)
	(b)		$\frac{2}{5}$	1	B1 any equivalent fraction to $\frac{2}{5}$ (Accept 0.4)

7	(a)		5k	1	B1 cao
	(b)		4m	1	B1 cao
8	(a)		Pattern 5	1	B1 for squares 7 across and 6 down drawn in or in outline
	(b)		12, 14	2	B1 cao for 12 on or by the table B1 ft for "12" + 2
	(c)		625 is odd all terms are even	1	B1 for 625 is odd oe or all the terms in the sequence are even oe
9	(a)	87 - 45	42	2	M1 for identifying 45 and 87 A1 cao
	(b)	45+49+49+57+72+75+87 434 ÷ 7	62	2	M1 for (45+49+49+57+72+75+87) ÷ 7 or adding any 6 of the 7 values and dividing by 6 A1 cao
10	(a)		2	1	B1 cao
	(b)		1, 2, 7, 14	2	B2 for all 4 factors and no extras (B1 for 2 or 3 correct factors and no extras or 4 correct factors and no more than 1 extra)
11	(a)		0.068, 0.3, 0.306, 0.63	1	B1 cao
	(b)	$\frac{18}{24}, \frac{14}{24}, \frac{20}{24}, \frac{9}{24}$ 0.3(75), 0.5(83), 0.7(5), 0.8(33) or better or 37%, 58%, 75%, 83% or better	$\frac{3}{8}, \frac{7}{12}, \frac{3}{4}, \frac{5}{6}$	2	M1 for using a common denominator for all that is a multiple of 24, at least one fraction correct A1 oe or M1 all to decimals (at least 1dp) or % (at least 2SF) with at least one correct A1 oe Answer can be written with original fractions or any equivalent form. SC B1 for 3 in the correct position or B1 for all in the reverse order
12			-2, 4, 7	2	B2 for a fully correct table (B1 for 1 or 2 correct entries)
			Straight line from (-2, -2) to (2, 10)	2	B2 for a correct straight line from (-2, -2) to (2, 10) (B1 ft for at least 4 correctly plotted points OR a single straight line passing through (0, 4) OR for a single line of gradient 3)

13		$x = 1$ gives 11 $x = 2$ gives 28 $x = 1.5$, gives 18.(3..)) $x = 1.6$, gives 20.(0..)) $x = 1.7$, gives 21.(9..)) $x = 1.8$, gives 23.(8..)) $x = 1.9$, gives 25.(8..)) $x = 1.85$, gives 24.8(3..)) $x = 1.86$, gives 25.(03..)) $x = 1.87$, gives 25.2(3..)) $x = 1.88$, gives 25.4(4..)) $x = 1.89$, gives 25.6(5..))	1.9	4	B2 for a trial between $1.8 \leq x \leq 1.9$ inclusive evaluated (B1 for a trial $1 \leq x \leq 2$ evaluated) B1 for a different trial $1.85 \leq x < 1.9$ evaluated B1 (dep on at least one previous B1) for 1.9 Accept trials correct to the nearest whole number (rounded or truncated) if the value of x is to 1dp but to 1 dp (rounded or truncated) if the value of x is to 2dp NB: no working scores, no marks even if answer is correct
14			2.42927(0474)	2	B2 for 2.42927 or better (B1 for 19.56 or 8.0518 seen) (B1 for 2.43, 2.429, 2.4292, 2.4293 or the digits 24927 or for $\frac{97800}{40259}$)
15	(a)			2	B2 cao B1 for shape in the correct orientation or for shape elongated or shortened by one square but with either top or bottom in the correct position. The shape must be above the line $y = x$
	(b)			3	B3 for correct enlargement in correct position (B2 for enlargement SF3 in incorrect position or enlargement, centre O but different scale factor ($\neq 1$)) (B1 for 4 lines enlarged by SF3 anywhere or enlargement, not from O, different scale factor ($\neq 1$))
16	(a)	$\frac{4}{12} + \frac{1}{12} = \frac{5}{12}$	$\frac{5}{12}$	1	B1
	(b)		$\frac{3}{20}$	1	B1
17	(a)	$0.5 \times 6 \times 14$	42	2	M1 for $0.5 \times 6 \times 14$ oe A1 cao
	(b)	$\sqrt{6^2 + 14^2} = \sqrt{232}$	15.23	3	M1 for $6^2 + 14^2$ or $36 + 196$ or 232 M1 for $\sqrt{36 + 196}$ or $\sqrt{232}$ A1 for answer in range 15.2 to 15.3

18	(a)	$18 \div 6 : 12 \div 6$	$3 : 2$	2	M1 for $18 : 12$ or $12 : 18$ or $1.5:1$ or $1:0.67$ <u>oe</u> or correct ratio reversed <u>eg</u> $2:3$ A1 for $3 : 2$ or $1 : 0.6 \dots$ [recurring]
	(b)	$5 + 1 = 6$ $54 \div 6 = 9$ 5×9	45	2	M1 for $\frac{5}{5+1} \times 54$ or $\frac{1}{5+1} \times 54$ or $54 \div '5+1'$ or 54×5 or 270 or $9 : 45$ or <u>9</u> seen, as long as it is not associated with incorrect working. A1 for 45 <u>cao</u>
19		$15 \times 3 = 45$ 15×3.5 $25 \times 9 = 225$ 25×9.5 $20 \times 15 = 300$ 20×15.5 $12 \times 21 = 252$ 12×21.5 $8 \times 27 = 216$ 8×27.5 $1038 \div 80 =$ $1078 \div 80 =$	$12.97 - 13.48$	4	M1 for fx consistently within interval including ends (allow 1 error) M1 (dep) consistently using appropriate midpoints M1 (dep on first M) for $\Sigma fx \div \Sigma f$ A1 for $12.97 - 13.48$
20			2	1	B1 <u>cao</u>
21		$800 \div 34$	24	2	M1 $800 \div 34$ or $23.5 \dots$ seen A1 <u>cao</u> SC: B1 23 only on answer line.
22	(a)		1010	1	B1 (accept 10.10am , 10.10pm, ten past ten etc)
	b)		6.0 to 7.5 exclusive	1	B1 for 6.0 to 7.5 exclusive
	c)		30	1	B1 <u>cao</u>
	d)		graph	1	B1 <u>cao</u> Line from (11.10, 20) to (11.50, 0) ($\pm 2\text{mm}$) Accept freehand line if intention is clear
	e)		40	2	M1 $20 \div 30$ <u>or</u> $20 \div 0.5$ <u>oe</u> or 0.6 or 0.66..... A1 <u>cao</u> SC B1 for $20 \div 40$ in working or 0.5 or 30 given as answer.
23	(a)		A and D	1	B1 <u>cao</u>
	(b)		E	1	B1 <u>cao</u>
24		$\frac{36}{100} \times 4500$	1620	2	M1 $\frac{36}{100} \times 4500$ A1 <u>cao</u>
25	(a)		Elevation	2	B2 for 4 vertical squares. Accept 4 by 1 rectangle. (B1 for 4 vertical squares with one square added or one parallelogram added at the top, or 3 vertical squares, or 4 horizontal squares)
	(b)		Plan	2	B2 for 2 adjacent squares, vertical or horizontal. Accept 2 by 1 rectangle. (B1 for 3 adjacent horizontal or vertical squares or a rectangle with sides in the ratio 2:1)

26		300 3 75 150	3	B3 for 4 correct answers (B2 for 2 or 3 correct answers) (B1 for 1 correct answer)																				
27	$\pi \times 0.65$	2.04–2.05	2	M1 for $\pi \times 0.65$ or 3.14×0.65 or 3.142×0.65 A1 for 2.04–2.05 SC Award B1 for 2.0 seen (not 2)																				
28	<table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Correct key</td> <td style="width: 10%;">B1</td> <td style="width: 60%;"></td> </tr> <tr> <td>Correct and ordered</td> <td>B2</td> <td>One or two errors or omissions B1 or Correct but not ordered B1</td> </tr> <tr> <td> <table style="border-collapse: collapse;"> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">0</td><td style="padding: 2px 5px;">9</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">1</td><td style="padding: 2px 5px;">3 3 5 6 8 8 9</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">1 2 3 9</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">3</td><td style="padding: 2px 5px;">8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">4</td><td style="padding: 2px 5px;">8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">5</td><td style="padding: 2px 5px;">8</td></tr> </table> </td> <td></td> <td></td> </tr> </table>	Correct key	B1		Correct and ordered	B2	One or two errors or omissions B1 or Correct but not ordered B1	<table style="border-collapse: collapse;"> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">0</td><td style="padding: 2px 5px;">9</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">1</td><td style="padding: 2px 5px;">3 3 5 6 8 8 9</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">2</td><td style="padding: 2px 5px;">1 2 3 9</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">3</td><td style="padding: 2px 5px;">8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">4</td><td style="padding: 2px 5px;">8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">5</td><td style="padding: 2px 5px;">8</td></tr> </table>	0	9	1	3 3 5 6 8 8 9	2	1 2 3 9	3	8	4	8	5	8				
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2	1 2 3 9																							
3	8																							
4	8																							
5	8																							
29	$x^2 + 3x + 4x + 12$	$x^2 + 7x + 12$	2	B2 for fully correct (B1 for 3 out of 4 terms correct in working including signs, OR 4 terms correct, with incorrect signs).																				
30	(a)	$(-3, -2, -1, 0, 1)$	2	B1 for correct answer but with one omission or extra value Or B2 for all correct																				
	(b)	$5x - 2x < -6$ $3x < -6$ $x < -6/3$ $x < -2$	$x < -2$	3 B1 for $5x - 2x < -6$ B1 for $3x < -6$ or $x < -6/3$ A1 for $x < -2$																				
31	$\frac{1}{2}(3 \times 4) \times 2$ $+ (3 \times 7) + (4 \times 7) + (5 \times 7) =$ $12 + 21 + 28 + 35$	96	3	M1 for $\frac{1}{2}(3 \times 4)$ or 3×7 or 5×7 or 4×7 M1 for attempt to add 5 faces which are areas A1 for 96 cao NB: Zero marks for calculating volume																				