

## The Order of Operations (BIDMAS) Past Paper Questions (MS)



Q1.

Question	Answer	Mark	Mark scheme	Additional guidance
	80	B1	cao	

Q2.

Question	Working	Answer	Mark	Notes
(i)		$2 \times (7^2 - 2) = 94$	B1	for brackets correctly placed
(ii)		$16 \div (2 + 6) + 2 = 4$	B1	for brackets correctly placed

Q3.

Question	Working	Answer	Mark	Notes
		$(5 + 10) \times 3 = 45$	B2	for $(5 + 10) \times 3 = 45$
		$= 45$	[B1]	[for $(5 + 10) \times 3$ oe or for 45]

Q4.

Question	Answer	Mark	Mark scheme
	Explanation	C1	for explanation,  <b>Acceptable examples</b> Answer should be 14 Should work out $3 \times 4$ first Alec should times first instead of adding Not used BIDMAS/BODMAS BIDMAS/BODMAS He has done it in the wrong order Alec needs to use brackets so $2 + (3 \times 4)$ Because you always do multiplication or division first  <b>Not acceptable examples</b> Because the answer is wrong It is $2 + (3 \times 4) = 15$ It needs brackets Because working out should only be one sum



Q5.

	Working	Answer	Mark	Notes
(a)		18	1	B1 cao
(b)		14	1	B1 cao

Q6.

	Working	Answer	Mark	Notes
(a)		10	1	B1 cao
(b)	$9 + 4 \times 5$ $= 9 + 20$	29	2	M1 for evidence of correct start to order of evaluation, $3 \times 3$ or 9 or 20 A1 cao
(c)		125	1	B1 cao
(d)		4	1	B1 accept - 4 or $\pm 4$

Q7.

Question	Working	Answer	Mark	Notes									
(a)		17	1	B1 cao									
(b)		$(5+3) \times 2 + 1$	1	B1 cao									
(c)		24	1	B1 for 24 or + 24									
(d)	$\frac{7}{10} + \frac{1}{5} = \frac{7}{10} + \frac{2}{10}$ <table border="1" style="margin: 5px auto;"> <tr> <td></td> <td>1</td> <td>5</td> </tr> <tr> <td>7</td> <td></td> <td>35</td> </tr> <tr> <td>10</td> <td>10</td> <td>50</td> </tr> </table>		1	5	7		35	10	10	50	$\frac{9}{10}$	2	M1 for a suitable common denominator (multiple of 10) with one fraction out of two (not $\frac{7}{10}$ ) correct or $0.7 + 0.2$ or all cells correct if cell method used A1 for $\frac{9}{10}$ oe, accept 0.9
	1	5											
7		35											
10	10	50											

Q8.

PAPER: IMA0 1F				
Question	Working	Answer	Mark	Notes
(a)		10	1	B1 cao
(b)		16	1	B1 cao
(c)		-11	1	B1 cao
(d)		17	1	B1 cao
(e)		$12 - 2 \times (3 + 1)$	1	B1 cao
(f)		Explanation/ reason	1	B1 Correct explanation of equivalence eg: Indication that the same operation needs to be applied to both numerator and denominator. Correct shading on diagrams to demonstrate 1 quarter and 2 eighths Conversion of both fractions to a common format 2 is $\frac{1}{4}$ of 8 oe