

ESTIMATING-ROUNDING-DECIMAL PLACES-SIGNIFICANT FIGURES-SET-1

1	(a) Write 5.309 87 correct to 3 decimal places. [1] (b) Write 0.003 648 9 correct to 3 significant figures. [1]			
MS-1	(a)	5.310	1	
	(b)	[0].00365	1	
2	(a) Write 4725.6 correct to two significant figures. <i>Answer(a)</i> [1] (b) Write 0.01026 correct to three decimal places. <i>Answer(b)</i> [1]			
MS-2	(a)	4700	1	
	(b)	[0].010	1	
3	(a) Write 5.309 87 correct to 3 decimal places. [1] (b) Write 0.003 648 9 correct to 3 significant figures. [1]			
MS-3	(a)	5.310	1	
	(b)	[0].00365	1	

4	By rounding each number correct to 1 significant figure, estimate the value of $\frac{189.6 \times 41.28}{0.00509 + 0.00298}$ [3]										
MS-4	<table> <tr> <td></td><td> $\frac{200 \times 40}{0.005 + 0.003}$ 1 000 000 </td><td>3</td><td> M1 for for 3 correct approximations A1 for numerator = 8000 or denominator = 0.008 </td></tr> </table>		$\frac{200 \times 40}{0.005 + 0.003}$ 1 000 000	3	M1 for for 3 correct approximations A1 for numerator = 8000 or denominator = 0.008						
	$\frac{200 \times 40}{0.005 + 0.003}$ 1 000 000	3	M1 for for 3 correct approximations A1 for numerator = 8000 or denominator = 0.008								
5	(a) Write 49 059 300 correct to 3 significant figures. [1] (b) Write your answer to part (a) in standard form. [1]										
MS-5	<table> <tr> <td>(a)</td><td>49 100 000</td><td>1</td><td></td></tr> <tr> <td>(b)</td><td>4.91</td><td>1</td><td>FT their (a)</td></tr> </table>	(a)	49 100 000	1		(b)	4.91	1	FT their (a)		
(a)	49 100 000	1									
(b)	4.91	1	FT their (a)								
6	Round these numbers to 3 significant figures. (a) 0.000 604 83 Answer(a) [1] (b) 6 998 800 Answer(b) [1]										
MS-6	<table> <tr> <td></td><td>30</td><td>1</td><td></td></tr> </table>		30	1							
	30	1									

9	Estimate the value of this calculation. $\frac{8.89 \times 61.3}{8.3 + 11.86}$ Show clearly the values you use. <i>Answer</i> [3]			
MS-9		$\frac{9 \times 60}{8 + 10 \text{ (or 12)}}$ $\frac{540}{18 \text{ or } 20}$ $30 \text{ or } 27$	M1 A1 A1	