

WORKING & ANSWERS FOR PLE 2018

1	$\begin{array}{r} 867523 \\ -374238 \\ \hline 493285 \end{array}$	2	$2 + 8 + 9 = 19$ 19 is <u>not</u> a multiple of 9 (not divisible by 9). Therefore 289 is not divisible by 9																
4	$\begin{array}{r} 445,000,000 \\ 584,000 \\ + \quad \quad 409 \\ \hline 445,584,409 \end{array}$	5	$\begin{array}{r} 412928.92 \\ + \quad \quad \quad 1 \leftarrow \\ \hline 412929.00 \\ = 412929 \end{array}$																
6	<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th>Tm</th> <th>M</th> <th>Hth</th> <th>Tth</th> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>5</td> <td>3</td> <td>2</td> <td>5</td> <td>9</td> <td>6</td> <td>1</td> </tr> </tbody> </table> <p>The place value of 7 is (Tm) Ten millions</p>	Tm	M	Hth	Tth	Th	H	T	O	7	5	3	2	5	9	6	1	3	$a + b = 20$ $a + 8 = 20$ $a + 8 - 8 = 20 - 8$ $a = 12$
Tm	M	Hth	Tth	Th	H	T	O												
7	5	3	2	5	9	6	1												
7	Hint: Follow BODMAS order $= 3 \times (15 + 5) - 7$ $= 3 \times 20 - 7$ $= 60 - 7$ $= 53$	8	Hint: Change 5 litres to millilitres 1 litre = 1000ml 5 litres = (1000 × 5)ml $= 5,000\text{ml}$																
9	$= -3a - 4b$ $= -3 \times a - 4 \times b$ $= -3 \times 2 - 4 \times -3$ $= -6 + 12$ $= 12 - 6$ $= 6$	10	$x - 7 = -2x - 1$ $x + 2x = -1 + 7$ $3x = 7 - 1$ $3x = 6$ $\frac{3x}{3} = \frac{6}{3}$ $x = 2$																
11	LCM = 60, $0.75 = \frac{75}{100} = \frac{3}{4}$ $= \frac{3}{10} \times 60 = 18$... (2 nd) $= \frac{5}{12} \times 60 = 25$... (3 rd) $= \frac{3}{4} \times 60 = 45$... (4 th) $= \frac{2}{15} \times 60 = 8$... (1 st) Asc. odr = $\frac{2}{15}, \frac{3}{10}, \frac{5}{12}, 0.75$	12	$= \frac{72}{100} \times \frac{24}{100} \div \frac{48}{100}$ $= \frac{72}{100} \times \frac{24}{100} \times \frac{100}{48}$ $= \frac{36}{100}$ $= 0.36$																
13	$= 2(a - 3) + 4b - 2(a - b - 3) + 5$ $= 2a - 6 + 4b - 2a + 2b + 6 + 5$ $= 2a - 2a + 4b + 2b - 6 + 6 + 5$ $= 6b + 6 - 6 + 5$ $= 6b + 5$	14	$\text{Int.} + \text{Ext.} = 180^\circ$ $\text{Ext.} = 180^\circ - \text{Int.}$ $= 180^\circ - 145^\circ$ $= 35^\circ$																
15	$A = \frac{\text{Apothem} \times \text{Perimeter}}{2}$ $= \frac{2\text{cm} \times (4\text{cm} \times 5)}{2}$ $= 20\text{cm}^2$	16	Hint: Add whole numbers first $= 3 + 2 + \left(\frac{5}{7} + \frac{2}{3}\right)$ $= 5 + \left(\frac{15 + 14}{21}\right)$ $= 5 + \frac{29}{21}$ $= 5 + 1 + \frac{8}{21} = 6\frac{8}{21}$																
17	$\pi D = 314\text{cm}$ $D = 314\text{cm} \div \pi$ $= 314 \div \frac{314}{100}$ $= 314 \times \frac{100}{314}$ $= 100\text{cm}$	18	$1^{\text{st}} = \frac{\text{Diff.}}{Q-1} = \frac{381}{4-1} = \frac{381}{3}$ $= 127$ $2^{\text{nd}} = (1^{\text{st}} \times Q)$ $= 127 \times 4$ $= 508$																
19	$= \frac{\text{Dist.}}{\text{Each step}} = \frac{40\text{dm}}{80\text{cm}}$ $= \frac{(40 \times 10)\text{cm}}{80\text{cm}}$ $= \frac{400\text{cm}}{80\text{cm}} = 5 \text{ steps}$	20	$\begin{array}{r} 18 \\ 9 \overline{) 170} \\ \underline{-9} \\ 80 \\ \underline{-72} \\ 08 \end{array}$ $= 18\frac{8}{9}$ (each child got 18 books and 8 books remained)																
21	$15\text{km} = 1 \text{ hr}$ $1 \text{ km} = \frac{1}{15} \text{ hr}$ $45\text{km} = \frac{1 \times 45}{15} \text{ hr}$ $= 3 \text{ hours}$	21																	

- (a). At what time did the taxi meet the lorry? (1 mark)
- (b). For how long did the lorry stop on the way? (1 mark)
- (c). What was the average speed of the taxi? (2 marks)
- (d). At what time did the lorry reach town A? (1 mark)
- (e). Find the average speed of the lorry for the whole journey. (2 marks)