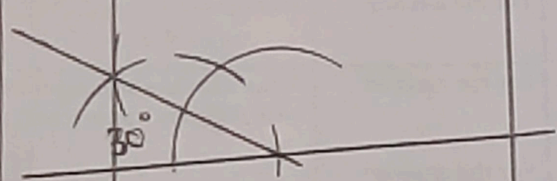
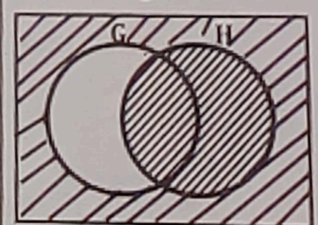


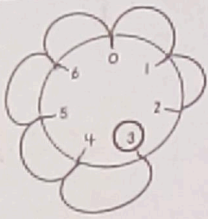
# THE SIPRO PRIMARY SEVEN MOCK II MATHEMATICS MARKING GUIDE - 2024

THE SIPRO PRIMARY SEVEN MOCK II MATHEMATICS MARKING GUIDE - 2024

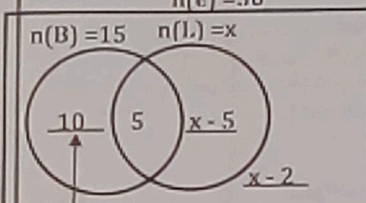
NO	LEVEL	SOLUTION	AWARD	REASON	COMMENT															
1	P.3	$\begin{array}{r} 204 \\ - 93 \\ \hline 111 \end{array}$	B <sub>2</sub>	For the answer	Involve word statements when operating.															
2	P.4	5 vertices	B <sub>2</sub>	For the answer	Expose candidates to a variety of solid shapes and identify the edges, vertices and faces.															
3	P.5	<table border="1"> <thead> <tr> <th>Base</th><th>No</th><th>Pem</th></tr> </thead> <tbody> <tr> <td>2</td><td>13</td><td>1</td></tr> <tr> <td>2</td><td>6</td><td>0</td></tr> <tr> <td>2</td><td>3</td><td>1</td></tr> <tr> <td>2</td><td>1</td><td>1</td></tr> </tbody> </table> $\begin{array}{r} 13 \div 2 = 6 \text{ r } 1 \\ 6 \div 2 = 3 \text{ r } 0 \\ 3 \div 2 = 1 \text{ r } 1 \end{array}$ $\begin{array}{r} 1101 \\ \text{two} \end{array}$	Base	No	Pem	2	13	1	2	6	0	2	3	1	2	1	1	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Operate and regroup bases involving word problems.
Base	No	Pem																		
2	13	1																		
2	6	0																		
2	3	1																		
2	1	1																		
4	P.4	$\begin{array}{r} 1 + 3 \\ 2 \end{array}$ $\frac{3}{2} + \frac{3}{2} = \frac{(3 \times 1) + (2 \times 3)}{2}$ $= \frac{3 + 6}{2}$ $= \frac{9}{2}$ $= 4\frac{1}{2}$	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Help candidates to operate fractions involving word statements. Accept: $1\frac{1}{2} + 3$ $(1 + 3) + \frac{1}{2}$ $4 + \frac{1}{2} = 4\frac{1}{2}$															
5			B <sub>2</sub>	For the answer	Draw and construct angles.															
6	P.6	$27^{\circ}\text{C} + (+5^{\circ}\text{C})$ $27^{\circ}\text{C} + 5^{\circ}\text{C}$ $32^{\circ}\text{C}$	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Expose candidates to solving integers using word statements.															
7	P.5	$\begin{array}{r} \text{Buying price} \\ \text{sh. } 605,000 \\ + \text{sh. } 63,000 \\ \hline \text{sh. } 668,000 \end{array}$	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Help candidates on how to identify the S.P, B.P, profit etc.															
8	P.6	<p style="text-align: center;">E</p> 	B <sub>2</sub>	For the answer	Make a review on set description.															

THE SIPRO MOCK II MATHEMATICS MARKING GUIDE - 2024



9.	P.6	$\text{Probability} = \frac{n(E)}{n(S.S)}$ $n(E) = 6$ $n(S.S) = 6+7 = 13$ $\text{Probability} = \frac{6}{13}$	B <sub>2</sub>	For 6 13	probability in fractions and decimals.
10.	P.7	11: 35pm 11: 35pm +12: 00hours <hr/> 23: 35hours	B <sub>1</sub> B <sub>1</sub>	For 11: 25p.m 23:25hours	Revisit conversion of time from 12hour clock to 24 hour clock and vice-versa.
11.	P.5	11, 13, 17, 19 They are 4 prime numbers	B <sub>1</sub> B <sub>1</sub>	For listing them For the answer	Revisit types of numbers and apply them.
12.	P.7	 2 - 6 = 3 (finite)	B <sub>1</sub> B <sub>1</sub>	For the use of a dial For the answer	Apply integers in our daily lives.
13.	P.6	$ST = P \times R \times T$ $\frac{100}{\text{sh } 130,000} \times 8 \times 6$ $\text{sh. } 1300 \times 48$ $= \text{sh. } 62400$	M <sub>1</sub> A <sub>1</sub>	For the method For the answer	Make a review on finding principle, rate and time.
14.	P.7	$\begin{array}{r} T \quad O \quad T \quad H \\ 4 \quad 8 \quad 9 \quad 7 \\ + \quad 0 \quad 1 \\ \hline 4 \quad 9 \quad 0 \end{array}$ 48.97 $\approx$ 49.0	M <sub>1</sub> A <sub>1</sub>	For the method For the answer	Expose candidates to rounding off decimal numbers and whole numbers.
15.	P.7	$(5b - a) - (2b - a)$ $5b - a - 2b + a$ $5b - 2b + a - a$ $3b + 0$ $3b$	M <sub>1</sub> A <sub>1</sub>	For the method For the answer	Make a review on equations with different approaches.
16.	P.7	$\begin{array}{r} 12:05 \\ - 07:45 \\ \hline 4:20 \end{array}$ He waited for 4 hours 20 minutes	M <sub>1</sub> A <sub>1</sub>	For the method For the answer	Accept $\begin{array}{r} 12:05 \\ - 7:45 \\ \hline 4:20 \end{array}$ He waited for 4 hours 20 minutes.
17.	P.6	$\frac{1}{2} \pi d + d = 36m$ $\frac{1}{2} \times \frac{22}{7} d + d = 36$ $\frac{11d}{7} + d = 36$ $\frac{11d}{7} + 7 + d \times 7 = 36 \times 7$ $11d + 7d = 36 \times 7$ $18d = 36 \times 7$ $18 \quad 18$ $d = 2 \times 7$ $d = 14m$	M <sub>1</sub> A <sub>1</sub>	For the proper substitution. For 14m.	Make a review on finding area and perimeter for parts of a circle.



18.	P.7	$(116 \times 41) - (21 \times 16)$ $16(41 - 21)$ $16 \times 20$ $160$ $\times 2$ $320$	M <sub>1</sub>  A <sub>1</sub>	For the answer	distributive property and operates correctly.
19.	P.6	$100cl = 1l$ $1cl = \frac{1}{10}l$ $100$ $560d = \frac{1}{10} \times 560l$ $100$ $= 56L$ $10$ $= 5.6 \text{ Litres}$	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Make a review on metric conversion.
20.	P.6	$\begin{array}{r rr} 2 & 24 & 30 \\ \hline 3 & 12 & 15 \\ \hline & 4 & 5 \end{array}$ $= 2 \times 3$ $= 6$	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Accept if one has listed the prime factors of 24 and 30.
<b>SECTION B</b>					
21.	P.7 a)	$n(e) = 30$  $15 - 5$ $10$ $x - 2$	B <sub>1</sub>  B <sub>1</sub>  B <sub>1</sub>	For each correct gap filled.	Expose candidates to different terms used in sets.
	b)	$x - 5 + 5 + 10 + x - 2 = 30$ $x + 10 - 2 + x = 30$ $x + x + 8 - 8 = 30 - 8$ $2x = 22$ $x = 11$ $n(B) \text{ only} + n(n(h) \text{ only})$ $10 + 11 - 5$ $10 + 6$ $= 16 \text{ farmers}$	B <sub>1</sub>      B <sub>1</sub>	For $x = 11$     For 16 farmers	
22	P.6 a)	$\begin{array}{r rr} 2 & 200 \\ \hline 2 & 100 \\ \hline 2 & 50 \\ \hline 2 & 25 \\ \hline 5 & 5 \end{array}$ $2 \times 2 \times 2 \times 5 \times 5$	M <sub>1</sub>  A <sub>1</sub>	For the method  For the answer	Make a review on prime factorization using the ladder and the factor tree.
	b)	$L \times h = \text{area}$ $L^2 = 1.96 \text{ km}$ $L = \sqrt{1.96 \text{ km}}$ $L = \frac{1.96 \text{ km}}{100}$ $\begin{array}{r rr} 2 & 196 \\ \hline 2 & 98 \\ \hline 7 & 49 \\ \hline 7 & 7 \end{array}$ $\begin{array}{r rr} 2 & 100 \\ \hline 2 & 50 \\ \hline 5 & 5 \\ \hline 1 & 1 \end{array}$ $2\sqrt{2^2 \times 7^2} \text{ dm}^2$	M <sub>1</sub>	For the method	Make a review of types of numbers and divisibility tests



		$\sqrt{2^2 \times 5^2}$ $\frac{14\text{dm}}{10}$ $14\text{dm}$	$A_1$	For the answer	
23	P.7 a)	60% are unemployed $100\% - 60\% = 40\%$ 40% are employed 40% rep 500 10% rep $\frac{500}{10}$ $100\% \text{ rep } \frac{500}{10} \times 100$ $= 50 \times 25$ $= 250$ $\times 5$ $1250 \text{ people}$	$B_1$	For 40%	Practice application of percentages and expose them for practice.
			$B_1$	For the method	
			$B_1$	For the answer	
	b)	$60\% - 40\%$ $= 20\%$	$B_2$	For the answer	
24.	P.7 a)	Sum of 21n < S = 1 app angle. $40^\circ + 86^\circ = 3d$ $126^\circ = 3d$ $d = 42^\circ$	$M_1$	For the method	Make a review on complementary angles and apply correctly.
			$A_1$	For the answer	
	b)	$90^\circ - 40^\circ = 50^\circ$ $180^\circ - 86^\circ = 94^\circ$ $e + 50^\circ + 94^\circ = 180^\circ$ $e + 144^\circ - 144^\circ = 180^\circ - 144^\circ$ $e = 36^\circ$	$M_1$	For the method	
			$A_1$	For the answer	
25.	P.7 a)	$18 - t = 3 + 2t$ $18 - 18 - t = 3 - 18 + 2t$ $-t = -15 + 2t$ $-t - 2t = 15 + 2t - 2t$ $-3t = 15$ $-3 \quad -3$ $t = 5$	$B_1$	For collecting like terms	Expose candidates to a variety of related questions and correctly apply them.
			$B_1$	For the method	
			$B_1$	For the answer	
	b)	$2a + 2b$ $(2 \times a) + (2 \times b)$ $(2 \times 5) + (2 \times 7)$ $10 + 14$ $24$	$B_1$	For the interpretation.	
			$B_1$	For the answer	
26.	P.7	$(30 \times 8) \text{ years} = 240$ $(20 \times 13) \text{ years} = 260$ Average = $\frac{\text{sum of dates}}{\text{number of pupils}}$ $\frac{500}{21}$ $= 23\frac{17}{21}$	$B_1$	For 240	Revisit statistical terms and apply them.
			$B_1$	For 260.	
			$B_1$	For 500	
			$B_1$	For division	
			$B_1$	For the answer	
27.	P.6 a)	$\frac{5.1 \times 3.2}{0.03}$ $\left(\frac{51}{10} \times \frac{32}{10}\right) \div \frac{3}{100}$ $\frac{51}{10} \times \frac{32}{10} \times \frac{100}{3}$ $17 \times 32$ $= 429$	$M_1$	For the method	Expose candidates to a variety of related questions.
			$A_1$	For the answer	



	b)	$\frac{5}{6} - \frac{1}{2} + \frac{3}{4}$ $\frac{5}{6} - \frac{1}{2} = \frac{(5 \times 1) - (2 \times 2)}{6}$ $= \frac{5 - 4}{6}$ $= \frac{1}{6}$	$M_1$  $A_1$	For the method  For $\frac{1}{6}$	Operate fractions with different operations.																		
28.	P.6 a)	<table border="1"> <thead> <tr> <th>Denomination</th><th>No of notes</th><th>Amount</th></tr> </thead> <tbody> <tr> <td>Sh.50,000</td><td>40</td><td>Sh. 2,000,000</td></tr> <tr> <td>Sh.20,000</td><td>50</td><td>Sh. 1,000,000</td></tr> <tr> <td>Sh.10,000</td><td>80</td><td>Sh. 800,000</td></tr> <tr> <td>Sh.3,000</td><td>100</td><td>Sh. 300,000</td></tr> <tr> <td></td><td></td><td>Sh. 4,300,000</td></tr> </tbody> </table> $\begin{array}{r} \text{Sh.50,000} \times 40 \\ = \text{sh 2,000,000} \\ \text{sh 1,000,000} \\ \text{sh 2,000,000} \\ = 5 \\ \text{sh 2,000,000} \\ \text{sh 1,000,000} \\ \text{sh 800,000} \\ \text{sh 3,800,000} \end{array}$	Denomination	No of notes	Amount	Sh.50,000	40	Sh. 2,000,000	Sh.20,000	50	Sh. 1,000,000	Sh.10,000	80	Sh. 800,000	Sh.3,000	100	Sh. 300,000			Sh. 4,300,000	$B_1$ $B_1$ $B_1$ $B_1$ $B_1$	For each correct gap filled	Help candidates to interpret the question and award $B_0$ without the working.
Denomination	No of notes	Amount																					
Sh.50,000	40	Sh. 2,000,000																					
Sh.20,000	50	Sh. 1,000,000																					
Sh.10,000	80	Sh. 800,000																					
Sh.3,000	100	Sh. 300,000																					
		Sh. 4,300,000																					
29.	P.7	$D = S \times T$ $= 75\text{km} \times 2\text{hours}$ $= 75\text{km} \times 2$ $= 150\text{km}$ <p>Remaining journey</p> $D = S \times T$ $= 60\text{km} \times 3\text{hours}$ $= 60\text{km} \times 3$ $= 180\text{km}$ $\text{Average speed} = \frac{(150 + 180)\text{km}}{(2 + 3)\text{hours}}$ $= \frac{330\text{km}}{5}$ $= 66\text{km/hour}$	$B_1$ $B_1$ $B_1$ $B_1$ $B_1$	For 150km  For 180km  For the substitution  For 330km  For the method	Revisit distance, time and speed and apply return journey.																		
30.	P.6 a)	$\frac{2p-4}{dm} - \frac{(p+6)}{dm}$ $2p-4 = p+6$ $2p-4+4 = p+6+4$ $2p = p+10$ $2p-p = p+10$ $p = 10$	$B_1$  $B_1$	For the equation  For $P = 10$	Expose candidates to algebra involving shapes like square, triangle, cuboid, cylinder, etc																		



		b) Length = $(P + 6)dm$ $= 10 + 6dm$ $= 16dm$ $L \times W = \text{area}$ $16dm \times w = 240dm^2$ $\frac{16dm \times w}{16dm} = \frac{240dm^2}{16dm}$ $w = 15dm$  Perimeter = $2(L + W)$ $= (16dm + 15dm)$ $= 2(31dm)$ $= 62dm$	B <sub>1</sub>  M <sub>1</sub>  A <sub>1</sub>	For 16 dm  For the method  For the perimeter	Make a review on finding the unknown on both plane and solid shapes.
31.	P.7 a)		S <sub>1</sub>  L <sub>1</sub>  C <sub>1</sub>  L <sub>1</sub>  C <sub>1</sub>	For sketch  For 8cm  45°  For line AC  For 45°	Emphasise neatness and accuracy.
	b)	Angle BCA $\pm 90^\circ$	B <sub>1</sub>	For angle BCA	
32.	P.7 a)	P (4,1)  Q (0,4)	B <sub>1</sub>  B <sub>1</sub>	For each correct  Co-ordinate	Make a review on plotting co-ordinates.



in finding the  
plane and

and

b)	R (-1, 1) S (0, -2)	B <sub>1</sub> B <sub>1</sub>	For plotting correctly.
c)	It is a kite	B <sub>1</sub> B <sub>1</sub>	For joining for the answer

