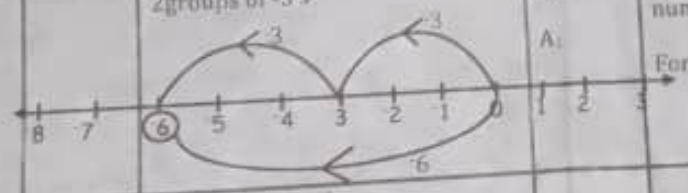
THE SIPRO PRIMARY SEVEN MOCK MATHEMATICS MARKING

NO	LEVEL	SOLUTION	AWARD	REASON	COMM
1	P.3	1 2 4 x 2 2 4 8	B_2	For the product	Recta on t
2.	P.5	4k –m + 5k + 3m 4k + 5k + 3m – m 9k + 2m	M_1 A_1	For collecting like terms. for the correct answer only.	Mak relat inv who con
3.	P.4	4000 400 + 44 4.444	B_2	For the correct answer only.	Rev com Ron
4.	P.5	100gm = 1kg 1gm = $\frac{1}{1000}$ kg 630gm = $\frac{1}{100}$ x $\frac{630}{1}$kg $\frac{63}{100}$kg = 0.63kg	M_1 A_1	For the method For 0.63kg	Mak con
5.	P.5	R= {1,2, 3, 4, 5} T = {2, 4, 6, 7} R∩T = {2, 4} no of subsets $=2^n$ $=2^2$ = 2x2 = 4 subset	B_1 B_1	For R∩T For number of subsets.	Ex w
6.	P.5	2t + 4 = 10 2t + 4 – 4 = 10 – 4 2t = 6 $\frac{2t}{2} = \frac{6}{2}$ t = 3 ∴ 2t = 2x 6 =2 x3 = 6	M_1 A_1	For the method For correct answer	Ex wi
7.	P.6	2p + 2p + 2p = 180° $\frac{6p}{6} = \frac{180°}{6}$ P = 30°	M_1 A_1	For the method For the answer	M co su in st
8.	P.6	2, 4, 12, 24, 72 x2 x3 x2 x3 2 4 x 3 7 2	M_1 A_1	For the pattern For 72	R w
9.	P.7	180° – (75 – 3t)° 180° – 75° + 3t° 105° + 3t° (105 + 3t)°	M_1 A_1	For the method For the answer	Ex va an an
10.	P.5	1:00p.m 12:00 13:00HR - 1:30 12:30p.m.	B_1 B_1	For the method used. For 12:30p.m	-Ge poi -Re ap
11.	P.5	Range = highest – lowest 5 – -7 5 –(-7) 5 + 7 12	M_1 A_1	For the method For the answer	R t

12	P.4	TH H T O 4 3 5 2 4 3 0 0 + 1 0 0 4 4 0 0 4352 ≈ 4400	M_1 A_1	For the method For the answer	Make a review on rounding off decimal numbers as well.
13.	P.6	Set Q	B_2	For the answer	Accept set Q complement
14.	P.7	Mango tree They are 9 trees	B_1 B_1	For illustration For 9 trees	Expose learners to such related questions and apply them. **Accept:** (6 + 4)-1 10-1 9 trees
15.	P.7	$\frac{3}{4} \div \frac{1}{2} = \frac{3}{4} \times \frac{2}{1}$ $= \frac{3}{2} \times \frac{2^1}{1}$ $= \frac{3}{2}$ $\frac{3}{2^1} \times 70kg$ $= 105kg$	M_1 A_1	For the method For the answer	Revisit ratios and their applications.
16.	P.7	5 heaps cost sh 6000 1 heap costs sh $\frac{6000}{5}$ 1 heap costs sh. 1200 Sh.8,400 heaps Sh.1,200 84 heaps 12 7 heaps	M_1 A_1	For the method For 7 heaps	Make enough practice on related questions for mastery.
17.	P.6	$0.7 = \frac{7}{10}$ $\frac{10}{10} - \frac{7}{10} = \frac{10-7}{10}$ $= \frac{3}{10}$ $= 0.3$	M_1 A_1	For the method For the answer	Make a review on probability of fractions, decimals etc.
18.	P.6	2x - 3 2groups of -3's 	M_1 A_1	For using a number line For -6	Encourage candidates to count gaps on the number line.
19.	P.6	Let the fraction be x X = 0.666---------- X x 10 = 0.0666 ----------x10 10x = 6.66--------- 10x = 6.66--------- $\frac{-x}{9x} = \frac{0.66}{6}$ $\frac{9x}{9} = \frac{6}{9}$ $X = \frac{2}{3}$	M_1 A_1	For the method For $\frac{2}{3}$	Revisit changing numbers like 0.166---to a common fraction. **Accept:** $\frac{6-0}{10-1} \mid \frac{2}{3}$ $\frac{6}{9}$
20.	P.5		B_1 B_1	For minute hand For hour hand	Teach time practically and operate as well.

SECTION B

21. P.7

a)

Marks scored	No of pupils	Total marks	
3	4	12	B_1
5	9	45	B_1
6	14	84	B_1
8	8	64	B_1
15	5	75	B_1

$45 \div 9 = 5$
$84 \div 6 = 14$
$8 \times 8 = 64$
$75 \div 5 = 15$

For each correct entry with working shown

Encourage learn... interpret the tab... answer the ques...

Award B_1ow-1 For omission of...

b)

$(4 + 9) + (14 + 8) + 5$
$(13 + 22) + 5$
$35 + 5$
$= 40$ Candidates
(40×2) books
80 books

B_1 For the candidates

B_1 For 80 books

22. P.7

$2y = 4x + 2$

X	0	1	-2	2
Y	1	3	3	-3

B_1 For each correct entry with correct working.

$2y = 4x + 2$
$2y = 4 \times 0 + 2$
$2y = 0 + 2$
$\frac{2y}{2} = \frac{2}{2}$
$Y = 1$

$2y = 4x + 2$
$(2 \times 3) = 4x + 2$
$6 - 2 = 4x + 2 - 2$
$4 = 4x$
$\frac{4}{4} \quad \frac{4}{4}$
$1 = x$
$\therefore X = 1$

B_1

$2y = 4x + 2$
$2y = 4x - 2 + 2$
$2y = 8 + 2$
$\frac{2y}{2} = \frac{8}{2}$
$y = 3$

$2y = 4x + 2$
$(2 \times 3) = 4x + 2$
$6 = 4x + 2$
$-6 - 2 = 4x + 2$
$-6 - 2 = 4x + 2 - 2$
$\frac{8}{4} = \frac{4x}{4}$
$X = -2$

B_1

Award B_0 minus working.

Award B_1ow-1 For omission of

23. P.7

a)

$(2k + 5)$ cm $= (3k + 1)$cm

$2k + 5 = 3k + 1$
$2k + 5 - 5 = 3k + 1 - 5$
$2k = 3k - 4$
$2k - 3k = 3k - 3k - 4$
$-k = -4$
$-1 \quad -1$
$K = 4$

M_1 For the method

A_1 For the answer

Make a review ... and in diagram... statement.

b)

$(3k + 1)$ cm
$(3xk) + 1$cm
$(3x4) + 1$cm
$12 + 1$cm
13cm
Perimeter $= (13 + 13 + 18 + 8)$cm
$= 26$cm $+ 26$cm
$= 52$cm

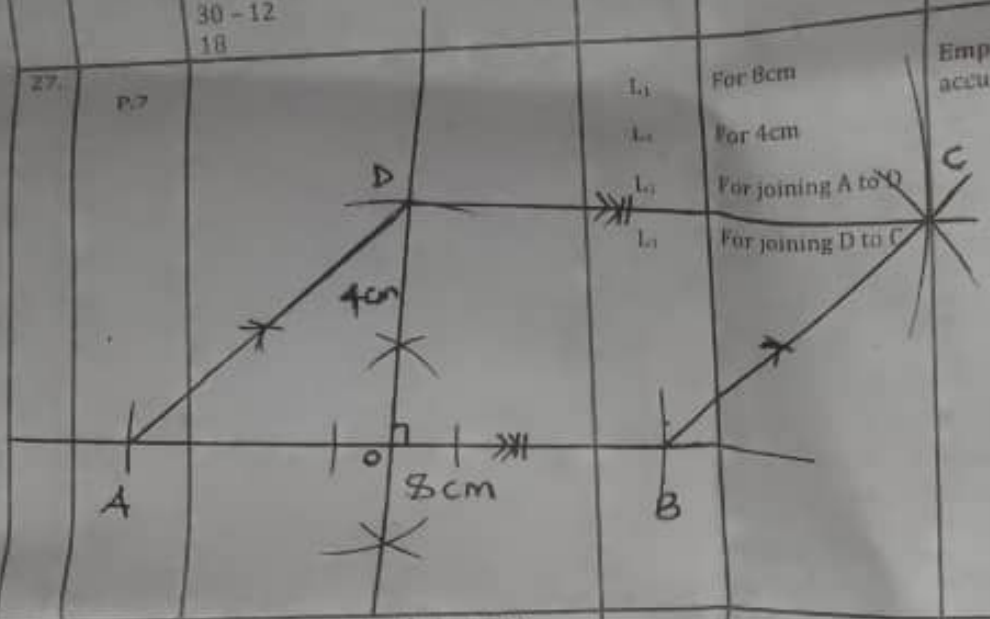
M_1 For the method

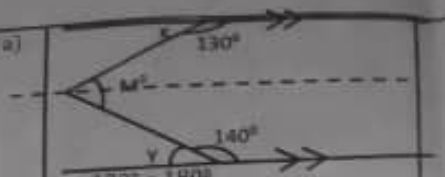
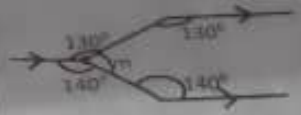
A_1 For 52cm

	c)	$a^2 + b^2 = c^2$ $a^2 + (5cm)^2 = (13cm)^2$ $a^2 + (5cm \times 5cm) = (13cm \times 13)$ $a^2 + 25cm^2 - 25cm^2 = 169cm^2$ $a^2 + 25cm^2 - 25cm^2 = 169cm^2 - 25cm^2$ $a^2 = 144cm^2$ $\sqrt{a^2} = \sqrt{144cm^2}$ $a = \sqrt{2^4 \times 2^2 \times 3^2 cm^2}$ $a = 2 \times 2 \times 3cm$ $a = 12cm$ ∴ Height = 12cm 2 | 144 2 | 72 2 | 18 3 | 9 3 | 3 1	M_1 A_1	For the method For 12cm	
24.	P.7 a)	n(ε) M, K, 2k, k, K + 10, $\frac{1}{6}(4K + 10)$ $\frac{1}{6}(2k + k + k + 10)$ $\frac{1}{6}(4k + 10)$	B_1	For $\frac{1}{6}(4k + 10)$	Expose candi variety of set approaches
	b)	$K + 10 = 2k + k$ $K + 10 = 3k$ $K + 10 - 10\ 3k - 10$ $K - 3k = 3k - 3k - 10$ $\frac{-2k}{-2} = \frac{-10}{-2}$ $K = 5$	B_1 B_1	For the equation For K = 5	
		$4k + 10$ $(4 \times k) + 10$ $(4 \times 5 + 10$ $20 + 10$ $= 30$ $\frac{1}{6} \times 30^5$ $4k + 10 + 5$ $(4 \times 5) + 15$ $20 + 15$ 35 pupils	B_1 B_1	For 30 For 35 pupils	
25.	P7	40% (males) 100% - 40% = 60% (female) 60% rep 960 1% rep $\frac{960}{60}$ 100% rep $\frac{960}{60} \times \frac{320}{60}$ 320×5 = 1600 seedlings	B_1 B_1 B_1 B_1	For 60% For the equation. For the method. For correct operation. For the answer.	Expose variety for ma
26.	P.3	Magic sum = 10×3 $= 30$ Magic sum = $16 + 10 + 4$ $= 30$	B_1	For the magic sum.	Make a magic s learner such.

16	2	12
6	10	14
8	18	4

B_1 B_1 B_1 For each correct gap filled.

		30 – (16 + 2) 30 + (18) 30 – 18 12 30 + (16 + 8) 30 – 24 = 6 30 – (8 + 4) 30 – 12 18			
27.	P.7		L_1 L_2 L_3 L_4	For 8cm For 4cm For joining A to C For joining D to C	Emphasise neatness and accuracy.
28.	P.7a)	Profit on each kg sh. 1,300 -sh. 1,250 sh. 50 sh. 3,900 sh 50 =78kg	M_1 A_1	For the method For 78kg	Make a review on exchan rate more especially on tables.
	b)	1kg of coffee costs sh. 3,550 174kg cost sh.3,550 x 174 Sh. 617,700 Sh. 617,700 Sh. 870 61770 87 = 710kg	M_1 M_1 A_1	For the sh.617,700 For the concept of division For 710kg	
29.	P.7 a)	Hours min 11 : 30a.m -11 : 15a.m 15 He took 15 minutes	M_1 A_1	For the difference For the answer	Help candidates to revi changing 12hour clock and vice-versa.
	b)	Hours min 2 75 12 : 15a.m -11 : 15a.m 1 45 He took 1hour 45 minutes	M_1 A_1	For the method For the answer	
	c)	10:30am = 10:30am +0000hour 10:30hours	B_1	For the answer	

30.	P.7 a)	 $x + 130^0 = 180^0$ $x + 130^0 - 130^0 = 180^0 - 130^0$ $x = 50^0$ $y + 140^0 = 180^0$ $y + 140^0 - 140^0 = 180^0 - 140^0$ $y = 40^0$ $M = 50^0 + 40^0$ $M = 90^0$	B_1 B_1	For $50^0 + 40^0$ For 90^0	Make a review and expose candidates to such angles and involve word statements Accept  $M + 130^0 + 140^0 = 360^0$ $M + 270^0 = 360^0$ $M + 270^0 - 270^0 = 360 - 270^0$ $M = 90^0$
	b)	$3n^0 + 2n^0 + 4n^0 = 360^0$ $\frac{9n^0}{9} = \frac{360^0}{9}$ $\frac{n^{\not 9}}{1^{\not 9}} = \frac{40^{\not 9}}{1^{\not 9}}$ $n = 40$	M_1 A_1	For the method For the answer	
31.	P.7 a)	Let the number be W. 1^{st} no = w 2^{nd} no = W + 2 3^{rd} no = W + 4 4^{th} no = W + 6 W, W + 2, W + 4, W + 6 $\frac{W + 2 + W + 4}{2} = \frac{27}{1}$ $\frac{2}{2} \times \frac{2w + 6}{1} = \frac{27 \times 2}{1}$ $2w + 6 = 54$ $2w + 6 - 6 = 54 - 6$ $\frac{2w}{2} = \frac{48}{2}$ $W = 24$ 24, 26, 28, 30	B_1 B_1 A_1	For the equation For the method For the numbers	Make a review on consecutive numbers and apply correctly.
	b)	24 x 30 240 x 3 720	M_1 A_1	For the method For the answer	
32.	P.7a)	Speed = $\frac{D}{T}$ $= \frac{200km}{3hours}$ $= 66\frac{2}{3}$ km/hr $\frac{200km}{3h}$ $= 66\frac{2}{3}$	M_1 A_1	For the method For the answer	Encourage learners to fi the scale before answer questions.
	b)	They met at 10:00a.m	B_1	For the answer	
	c)	Average speed = $\frac{D}{T}$ $\frac{80km}{2hour}$ 40km/h.	M_1 A_1	For the method For the answer	