PRIMARY SEVEN MARKING GUIDE FOR PRE- MOCK 2024
MATHEMATICS

SECTION A

1. Work out 275

- 53

222 ✓✓ B2

2. Write 54,045 in words

TTH	TH	H	T	O
5	4,	0	4	5

Fifty four-thousand, forty five ✓✓ B2

3. Given that a=2 and b=-1 find the value of $a^3 - 2b$

(a x a x a) - (2 x b)

(2 x 2 x 2) - (2 x -1) ✓M1

(8) - (-2) ✓

8 + 2 = 10 ✓A1

4. Find the next number in the sequence

3, 4, 7, 12, 19, 28, 39 ✓ B1

+1 +3 +5 +7 +9 +11 ✓B1

28 + 11 = 39 ✓

5. The time shown on the clock face below is in the afternoon. Write it in 24-hour clock

12:50 PM ✓B1

12:50 ✓

+00 00 hours ✓

12:50 hours ✓ B1

OR

12.50 ✓

+00 00 ✓

12 50 hours

B1

6. Simplify

$\frac{9}{21} \div \frac{3}{7}$ L.C.M = 21

$\left(\frac{\cancel{21}^{1} \times 9}{\cancel{21}_{1}}\right) \div \left(\frac{\cancel{21}^{3} \times 3}{\cancel{7}_{1}}\right)$ ✓M1

$(1 \times 9) \div (3 \times 3)$ ✓

$9 \div 9 = 1$ ✓A1

$\frac{9}{21} \div \frac{3}{7}$ ✓

$\frac{\cancel{9}^{3}}{\cancel{21}_{7}} \times \frac{7}{\cancel{3}_{1}}$ ✓M1

$\frac{1 \times 1}{1 \times 1} = \frac{1}{1}$ ✓

$= 1$ ✓A1

$\frac{9}{21} \div \frac{3}{7}$ ✓ M1

$\frac{9 \div 3}{21 \div 7} = \frac{3}{3}$ ✓

$= \frac{1}{1}$ ✓

$= 1$ ✓A1

7. Work out

$(72 \times 5) - (5 \times 48)$

$= 360 - 240$ ✓M1

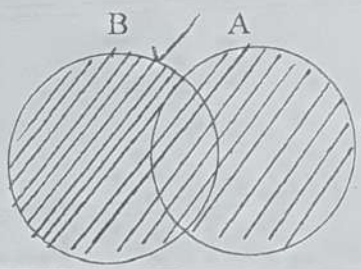
$= 120$ ✓A1

$5(72 - 48)$ ✓

$5(24)$ ✓M1

$5 \times 24 = 120$ ✓A1

8. Shade either set A or set B



✓ B_2

9. Find the value of 3 in 4321 five

3 × five-five ✓

3 × 5 × 5 ✓

$3 \times 10_{five} \times 10_{five}$ M1 ✓ $= 300$ five ✓A1

10. Find the G.C.F of 18 and 27

$F_{18} = \{1, 2, 3, 6, 9, 18\}$ ✓

$F_{27} = \{1, 3, 9, 27\}$ ✓ B_1

$CF = \{1, 3, 9\}$ ✓

G.C.F = 9 ✓B_1

3	18	27
3	6	9
	2	3

✓B_1

G.C.F = 3 × 3 ✓

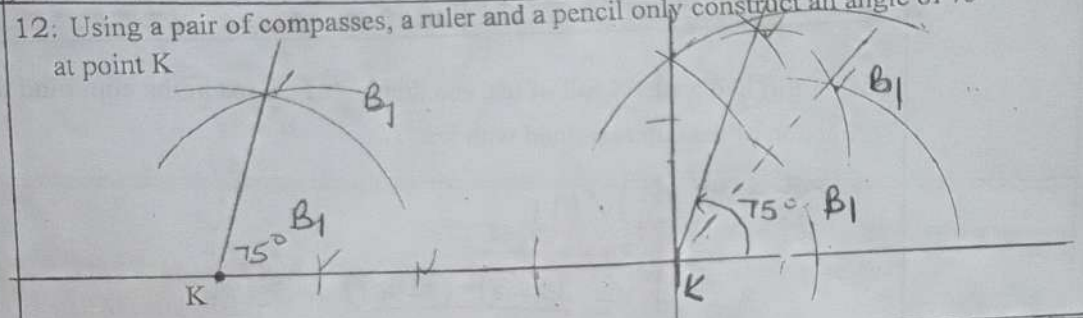
= 9 ✓B_1

11. The cost of three US dollars is Ug sh. 10,950. Find the number of dollars that Martha will buy with Ug. sh. 255,500

$\frac{10950}{3}$ 3650 ✓ B1

5110 / 255,500 / 3650 73 / = 5110 / 73 / 70 / 70 us dollars. B1

12. Using a pair of compasses, a ruler and a pencil only construct an angle of 75° at point K



13. Work out the median of 1, -2, 3, -3, 4 and 3

= -3, -2, 1, 3, 3, 4 M1

= $\frac{1+3}{2}$

= $\frac{4}{2}$ 2

= 2 A1

OR

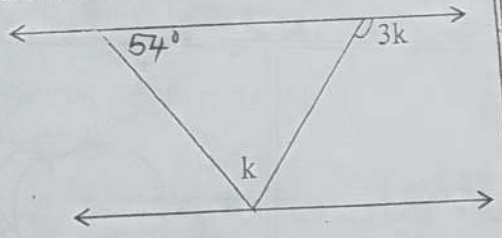
= 4, 3, 3, 1, -2, -3 M1

= $\frac{3+1}{2}$

= $\frac{4}{2}$ 2

= 2 A1

14. Find the value of k in the diagram below



K + 54° = 3K M1

K − 3K + 54 = 3K − 3K

−2K + 54 = 0

−2K + 54° − 54° = 0 − 54°

−2K + 0 = −54°

$\frac{-2K}{-2} = \frac{-54^{27}}{-2_1}$

K = 27° A1

3K = K + 54° M1

3K − K = K − K + 54°

2K = 0 + 54°

$\frac{2K}{2} = \frac{54°}{2}$

K = 27° A1

(c) Work out the number of pupils who do not eat fish at all (01 marks)

$4t-8+t$

$4\times10-8+10$ ✓

$40-8+10$ ✓

$32+10=42$ ✓ B1

22. A school Bursar went to the market and bought the following items

2kg of meat at sh. 15,000 per kg

4kg of rice at sh. 5,000 each kg

3 ½ kg of sugar at sh.4,600 per kg

1 ½ kg of tea leaves at sh. 1,500

If the Bursar was given a change of sh. 23,000, find the total amount of money, he went with (05 marks)

Meat = Sh $15,000\times2$

= Sh. 30,000 ✓B1

Rice = Sh. $5,000\times4$

= Sh. 20,000 ✓B1

Sugar = Sh. $4,600\times\frac{7}{2}$

= Sh. 2300×7

= Sh. 16,100 ✓B1

Tea leaves = Sh. 1,500 ✓

Sh. 30,000 ✓

Sh 20,000 ✓

Sh 16,100 ✓ M1

Sh 23,000 ✓

+ Sh. 1,500 ✓

Sh. 91,600 A1

~~23.~~ A packet containing 2 dozen of pens weighs 9.6kg, if the empty packet weighs 2.4kg. Find the weight of each pen in grammes.

9.6Kg

−2.4Kg

7.2Kg ✓B1

72×1000 ✓

7200g ✓B1

1dozen = 12 pens

2dozen = 2×12 ✓B1

= 24 Pens

1Kg = 1000g

No of games

$\frac{7200}{24}$ g

300g ✓B1

(04 marks)

$9.6\times1000 = 9600$g. ✓B1

$2.4\times1000 = 2400$g. ✓B1

9600g − 2400g = 7200g. ✓

1dozen = 2×12 B1

= 24 Pens ✓

$\frac{7200}{24}$g = 300g B1

19. Work out 20÷5x4

(20÷5)x4 ✓ M1

4x4=16 ✓ A1

20. A motorist rode 150km in 75 minutes, find the speed of the motorist in kilometres per hour

1h=60min Speed=Distance÷Time✓

S = D ÷ T ✓

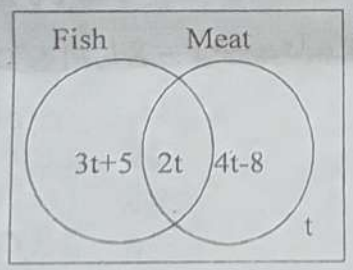
$S = 150km \div \frac{75}{60} h$ ✓M1 $S = 61km \times \frac{20}{h}$✓

$S = 150km \times \frac{60^{20}}{75h}$ ✓ $S = 120km/h$ A1

$= 31$

SECTION B

21. The diagram below shows the number of pupils in a p.7 class who eat meat(M) and Fish(F)



(a) Find the value of t, if 52 pupils eat meat. (02marks)

26+4t-8=52 ✓M1

6t-8=52✓

6t-8+8=52+8✓

6t+0=60✓

$\frac{6t}{6} = \frac{60}{6}$✓ t=10✓A1

(b) Find the total number of pupils in the class (01 marks)

=(3x10+5)+(2x10)+(4x10-8)+10✓

=(30+5)+(20)+40-8)+10✓

=35+20+32+10✓

=97 Pls✓ B1

15. Given that

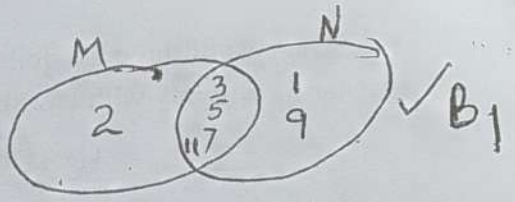
Set M = {2,3,5,7,11}

Set N ={1, 3,5,7,9,11}

Find n [N-M].

N−M = {1, 9} ✓ B1

n(N−M) = 2 ✓ B1



✓ B1

N−M = {1, 9} ✓

n(N−M) = 2 ✓ B1

16. A girl had a cup ¾ full of tea, she drank $\frac{2}{9}$ of the tea in the cup. Find the fraction of the cup remained with tea.

$\frac{3}{4} - (\frac{2}{9} \times \frac{3}{4}) \checkmark M1$

$\frac{3}{4} - \frac{1}{6} \checkmark = \frac{(3\times3)-(2\times1)}{12} \checkmark$

$= \frac{9-2}{12} \checkmark$ $\frac{7}{12} \checkmark$ A1

17. A boy bought 4 packets of biscuits each weighing 350g. Find the weight of the biscuits in kilogrammes

4 × 350 = 1400g ✓ B1

1Kg = 1000g ✓

1400g = $\frac{1400g}{1000g}$ ✓ $\frac{14}{10} \checkmark = 1.4$ Kg ✓ B1

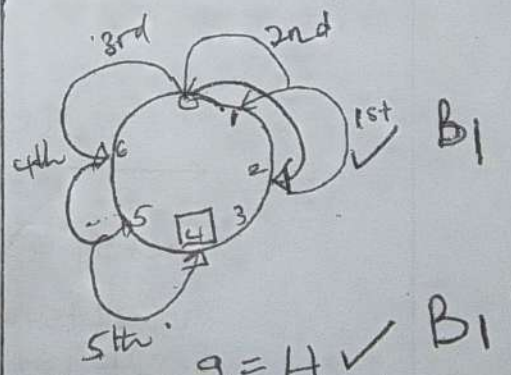
18. Find the value of g

2-5=g(finite 7)

7+2-5=g(finite7) ✓ M1

9-5=g(finite7) ✓

4 =g (finite7 ✓ A1



B1

g = 4 ✓ B1

24. (a) Find the sum of the value of 6 and the value of 9 in the number 6539 (03 marks)

$6 \times 1000 = 6,000$ ✓B1 $\quad 6,000$ ✓

$9 \times 1 = 9$ ✓B1 $\quad +\ 9$ ✓

$6,009$ ✓ B1

(b) Work out $1010_{five} - 344_{five}$ (02marks)

$\cancel{10}^{4}\,\cancel{1}^{5}\,\cancel{0}^{5}\,\cancel{10}$ five M1

-344

111 five. A1

25. A bus reached Mbarara from Kasese at 3:20pm, if the journey took 100minutes

(a) Find the time at which the bus left Kasese (03 marks)

$1h = 60min$

$60min = 1h.$

$1min = \left(\frac{1}{60}\right)h.$

$100min = \left(\frac{1}{60} \times \frac{5}{100}\right)$ ✓

$= \frac{5}{3}h.$ ✓

$3\overline{)5}$ 1 rem 2.

$\frac{3}{2}$

$= 1\frac{2}{3}h$ ✓

$1h, \left(\frac{2}{3} \times \frac{20}{60}\right)$ ✓

$1h, 40min$ B1

$\cancel{3}^{2}:\cancel{20}^{80}$

$-1:40$ ✓ M1

$1:40PM$ ✓ A1

(b) If the distance from Kasese to Mbarara is 150km, find the average speed of the bus in metres per seconds (03 marks)

1h = 60 × 60 (3600s)

Speed = Distance ÷ Time

$S = D \div T$ $\quad S = 30Km \times \frac{3}{h}$

$S = 150km \div \frac{5}{3}h$ M1 $\quad S = 90Km/h$ A1

$S = \frac{150Km \times 3}{5h}$ $\quad \frac{90 \times 1000}{60 \times 60}\ m/s$

5 × 5 = 25 m/s B1

26. (a) Solve $\frac{1}{2}n - \frac{3}{1} = \frac{n+1}{1}$ (03 marks)

L.C.M = 2.

$(2 \times \frac{1}{2}n) - (2 \times 3) = (2 \times n) + (2 \times 1)$ M1

$n - 6 = 2n + 2$

$n - 2n - 6 = 2n - 2n + 2$

$-n - 6 = 0 + 2$

$-n - 6 + 6 = 2 + 6$ M1

$-n + 6 - 6 = 8$

$-n = 8$

$\frac{-n}{-1} = \frac{8}{-1}$

$n = -8$ A1

$\frac{1}{2}n - n = 1 + 3$ M1 L.C.M = 2

$\frac{1}{2}n - \frac{n}{1} = \frac{4}{1}$

$2 \times \frac{1}{2}n - 2 \times n = 2 \times 4$

$n - 2n = 8$ M1

$\frac{-n}{-1} = \frac{8}{-1}$

$n = -8$ A1

(b) Simplify 4g-7k-2g+3k (02 marks)

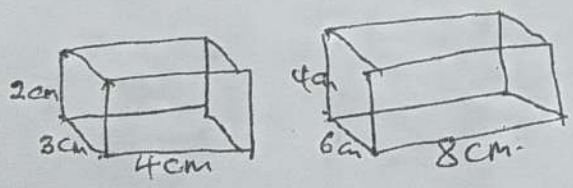
$4g - 2g + 3k - 7k$ M1

$2g - 4k$ A1

$3k - 7k + 4g - 2g$ M1

$-4k + 2g$ A1

27. A cuboid of sides 2cm by 3cm by 4cm has a mass of 2kg. find the mass of a cuboid made by similar materials of sides 4cm by 6cm by 8cm (06 marks)



$V = L \times W \times h$

$V = 4cm \times 3cm \times 2cm$ M1

$V = 24cm^3$ A1

$V = L \times W \times h$

$V = 8cm \times 6cm \times 4cm$ M1

$V = 48cm^2 \times 4cm$

$V = 192cm^3$ A1

24cm³ rep. 2Kg

1cm³ represents $\frac{2Kg}{24}$

192cm³ rep. $\left(\frac{1}{24} \times 192\right)$ M1 Kg.

$= \frac{192}{24}$ Kg

$= 8$ Kg

= 16Kg. A1

28. The average of 12, g, 7, g+1, g and g-2 is 9.

a) Find the value of g. (03 marks)

Total $= 6 \times 9$

$= 54$ ✓ B1

$12 + g + 7 + g + 1 + g - 2 + g = 54$ ✓ M1

$9 + g + g + g + 12 - 2 + 7 + 1 = 54$ ✓

$4g + 10 + 8 = 54$ ✓

$4g + 18 = 54$ ✓

$4g + 18 - 18 = 54 - 18$ ✓

$4g + 0 = 36$ ✓

$4g = 36$ ✓

$\frac{4g}{4} = \frac{36}{4}$ ✓

$g = 9$ ✓ A1

(b) Work out the range of the numbers (01 marks)

12

$g = 9$ ✓

$g + 1 = 9 + 1$

$= 10$ ✓

$g = 9$ ✓

$g - 2 = 10 - 2$ ✓

$= 8$

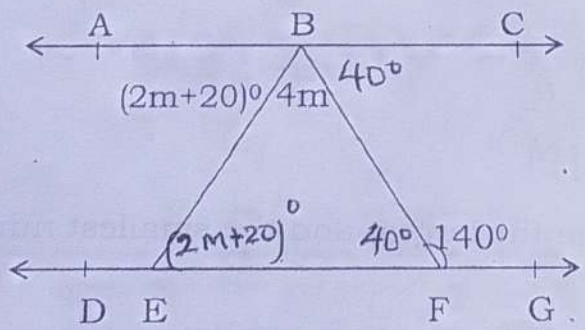
Nos are 7, 8, 9, 9, 10 and 12 ✓

range = Highest − lowest

range = 12 − 7 ✓

range = 5 ✓ B1

29. (a) Find the value of m in the diagram below (02 marks)



$180° - 140° = 40°$

$2m + 20° + 4m + 40° = 180°$ ✓ M1

$2m + 4m + 20° + 40° = 180°$ ✓

$6m + 60° = 180°$ ✓

$6m + 60° - 60° = 180° - 60°$ ✓

$6m + 0 = 120°$ ✓

$\frac{6m}{6} = \frac{120°}{6}$ ✓

$m = 20°$ ✓ A1

$4m + 2m + 20° = 140°$ ✓ M1

$4m + 2m + 20° = 140°$ ✓

$6m + 20° = 140°$ ✓

$6m + 20° - 20° = 140° - 20°$ ✓

$6m + 0 = 120°$ ✓

$\frac{6m}{6} = \frac{120°}{6}$

$m = 20°$ A1

b) Find the size of the angle market FEB (02 marked)

$\angle FEB = 2M + 20$ ✓

$\angle EEB = (2 \times 20) + 20$ ✓ M1

$\angle EEB = 40° + 20°$ ✓

$\angle FEB = 60°$ ✓ A1

30. Given the digits 3,5, and 0

(a) Form all the four numbers that will be formed using the above digits (04 marks)

(i) 305 ✓ B1

(ii) 350 ✓ B1

(iii) 503 ✓ B1

(iv) 530 ✓ B1

(b) Find the difference between the largest and the smallest numbers formed (02 marks)

Difference = Highest - lowest.

D = 530 - 305 ✓ M1

$$D = \begin{array}{r} {}^{4}5\,{}^{2}\not{3}\,{}^{10}\not{0} \\ -\,3\,0\,5 \\ \hline 1\,2\,5 \end{array}$$ ✓

✓ A1

31. (a) Simplify

$\frac{1}{2} + \frac{1}{4} \div \frac{3}{8} \times \frac{3}{10}$ (03 marks)

$\frac{1}{2} + \frac{1}{\cancel{4}_{1}} \times \frac{\cancel{8}^{2}}{\cancel{3}_{1}} \times \frac{3}{\cancel{10}} \checkmark M1$

$\frac{1}{2} + \frac{2}{10} = \frac{(5\times1)+(1\times2)}{10} \checkmark$

$= \frac{5+2}{10} \checkmark M1$

$= \frac{7}{10} \checkmark A1$

b) In L.C.1 meeting the ratio of men to woman was 3:5 respectively. 30 women attended the meeting. Find the total number of people who attended the meeting (03 marks)

Total ratio $= \overset{M+W}{3+5}$

$= 8 \checkmark B1$

let the total no of ple be t

$\frac{5}{8} \times t = 30 \checkmark M1$

$\frac{5t}{8} = 30 \checkmark$

$\frac{\cancel{8}}{\cancel{5}} \times \frac{\cancel{8}}{\cancel{8}} t = \cancel{30}^{6} \times \frac{8}{\cancel{5}} \checkmark$

$t = 6 \times 8 \checkmark$

$t = 48$ people $\checkmark A1$

OR Fraction of women $\frac{8}{8} - \frac{3}{8} = \frac{5}{8}$ B1 ✓

$30 \div \frac{5}{8} \checkmark M1$

$\cancel{30}^{6} \times \frac{8}{\cancel{5}_{1}}$

$6 \times 8 = 48$ ple ✓ A1

Total parts $= 3+5$

$= 8 \checkmark B1$

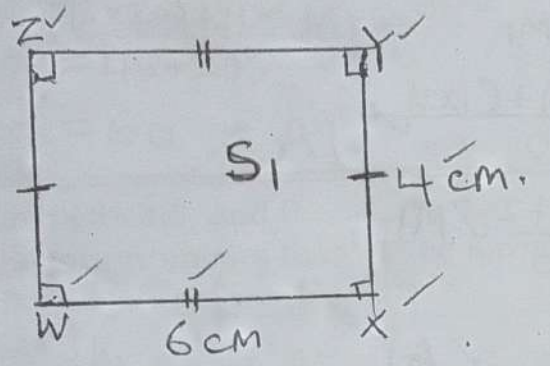
5 parts rep. 30 ✓

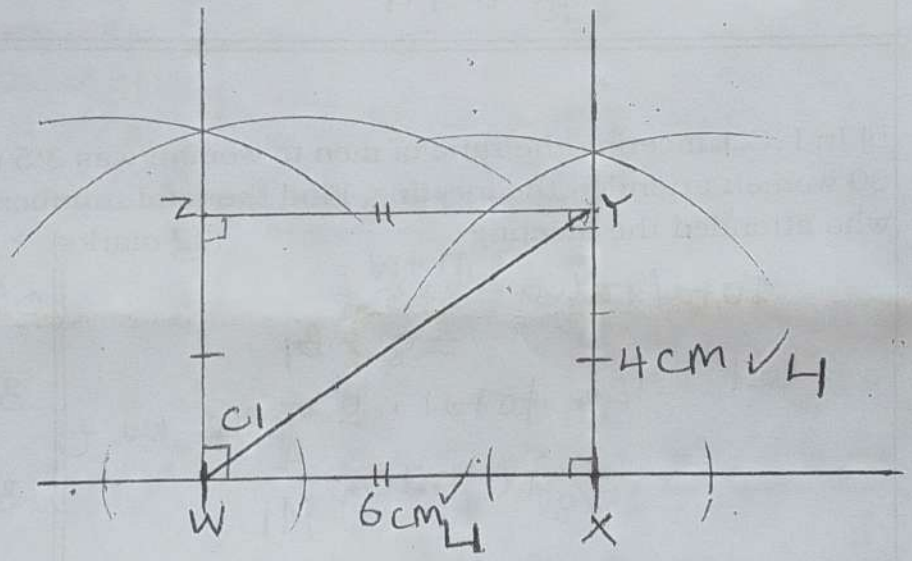
1 part rep. $\frac{30}{5} \checkmark$

8 parts rep $\frac{\cancel{30}^{6}}{5} \times 8$ M1

$6 \times 8 = 48$ ple ✓ A1

32. Using a pair of compasses, a ruler and a pencil only construct a quadrilateral ZWXY such that WX=6cm, YX=4cm and angle W=90° (04 marks)





(b) Measure angle YWX (01 marks)

$\angle YWX = 34°/35°/36°$ B1

END