
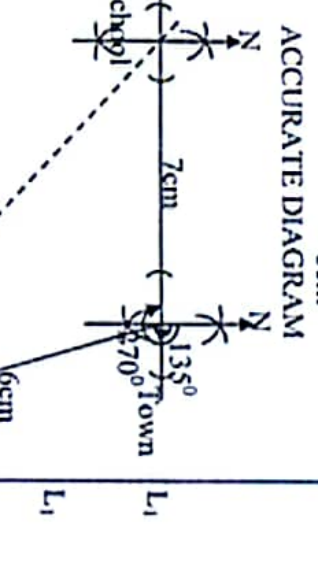


P.7 PRE-LE MATHS MARKING GUIDE, 2024

S/N	SOLUTION	MRKS	COMMENTS	S/N	SOLUTION	MRKS	COMMENTS
1.	$\frac{84^2}{21}$ = 12	M ₁ A ₁	For correct division For 12	8.	1kg = 1000gms $2\frac{1}{2}$ kg = $2\frac{1}{2} \times 1000$ gms = $\frac{2}{2} \times \frac{500}{1000}$ gms = 2500gms Number of packets = $\frac{102500}{10250}$ gms = 10 packets	B ₁ B ₁	For 2500gms For 10 packets
2.	$(9 \times 10^3) + (5 \times 10^0) + (4 \times 10^{-2})$ $9 \times 100 + 5 \times 1 + 4 \times \frac{1}{100}$ $900 + 5 + 0.04$ $900 + 5 + 0.04$ Nine hundred five and four hundredths	B ₁ B ₁	For obtaining 900 + 5 + 0.04 For C.A.O	9.	Let the angle be y $y + 75^\circ = 90^\circ$ $y = 90^\circ - 75^\circ$ $y = 15^\circ$	B ₁ B ₁	For obtaining 15°
3.	2mn — 7pq — mn + 6pq 2mn — mn — 7pq + 6pq mn — pq	M ₁ A ₁	For collection of like terms For mn — pq	10.	(a) 	C ₁	For accurate angle 15°
4.	Volume = $\frac{1}{3} \pi r^2 h$ $\frac{1}{3} \pi \times 64 \text{cm}^3$ Length = $\sqrt[3]{64 \text{cm}^3}$ $\sqrt[3]{64}$ $\sqrt[3]{2^3 \times 2^3 \times 2^3}$ $\sqrt[3]{2^9}$ 2^3 = 2	M ₁ A ₁	For correct method For Length 4cm	11.	(b) N = (-2, 4) Tomorrow is Thursday = 3 3 + 48 = — (finite 7) 51 ÷ 7 = 7 rem 2 2 stands for Tuesday	P ₁ B ₁	For plotting p (-3, 2) For N (-2, 4)
5.	Total ratio = 3 + 1 = 4 Let the total be n Girls $\frac{1}{4}$ of n = 40 $\frac{1}{4} \times n = 40 \times 4$ $n = 160$ pupils	M ₁ A ₁	For forming equation For 160 pupils	12.	Let the fraction be a $\frac{a}{100} = 0.4545$ $100a = 45.45$ $a = 0.45$ $\frac{999}{999} = \frac{45}{111}$ $a = \frac{5}{11}$	M ₁ A ₁	For correct method For Tuesday
6.	Buying price = Shs. 20,000 + 5,000 = Shs. 25,000 %age Loss = $\frac{\text{Loss}}{\text{B. Price}} \times 100\%$ = $\frac{\text{Shs. } 25000}{\text{Shs. } 25000} \times 100\%$ = 20%	B ₁ B ₁	For Shs. 25,000 For 20%	7.		M ₁ A ₁	For shading Z For complement correctly

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13.	Quotient = $\frac{108^{\cancel{2}^1}}{\cancel{4}^1}$ = 27 Tallies of 27 = $\text{ } \text{ } \text{ } \text{ }$	B ₁	For quotient 27 For $\text{ } \text{ } \text{ } \text{ }$ tallies	20.	$y + n + (180^\circ - 140^\circ) = 180^\circ$ $3n + 40^\circ = 180^\circ - 40^\circ$ $3n = 180^\circ - 40^\circ$ $3n = 140^\circ$ $n = 70^\circ$	M ₁	For correct use of angle properties
14.	Volume = $\frac{1}{2} \times b \times h \times L$ $= \frac{1}{2} \times 14\text{cm} \times 9\text{cm} \times 20\text{cm}$ $= 7 \times 9\text{cm} \times 20\text{cm}$ $= 1260\text{cm}^3$	M ₁	For correct multiplication For 1260cm ³	21.	(a) $n(R) = 50$ $n(D) = 32$ $n(R) = 30$ $n(D) = 32$ $n(R \cap D) = 16$ $n(R \cup D) = 30 + 32 - 16 = 46$ $n(R \cup D) = 46$		

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23.	(a) Length = Circumference Circumference = πD $= \frac{22}{7} \times 28\text{cm}$ $= 88\text{cm}$ (b) Area = L x W $88\text{cm} \times h = 1760\text{cm}^2$ $88\text{cm} \times h = 1760\text{cm}^2$ $h = 20\text{cm}$	M ₁ A ₁ M ₁ A ₁	For correct method For 88cm For correct division For height = 20cm
24.	(a) Numbers are; y, y + 2, y + 4 Average = Sum Number of items $= \frac{y + y + 2 + y + 4}{3} = 20$ $y + y + 2 + y + 4 = 20 \times 3$ $3y + 6 = 20 \times 3$ $3y + 6 = 60$ $3y = 60 - 6$ $3y = 54$ $y = 18$	M ₁ A ₁	For correct method For y = 18
25.	Numerals = y = 18 Numerals = {18, 20, 22} (b) (i) $7 \times 2 \times y = 42$ $14y = 42$ $y = 3$ HCF = 2 x 3 $= 6$ (ii) A = 2 x 2 x 3 x 3 $= 36$	B ₁ B ₁ B ₁ B ₁ B ₁	For obtaining {18, 20, 22} For y = 3 For HCF = 6 For A = 36
26.	(a) 1 Pound costs Ug Shs. 4650 180 Pounds cost Ug Shs. 837,000 (b) 1 US dollar cost Ug Shs. 3750 70 US dollars cost Ug Shs. 262,500 Kenya Shilling cost Ug Shs. 28 Kenya Shilling cost Ug Shs. 262,500 Ug Shs. 9375 Kenya Shillings	M ₁ A ₁ M ₁ A ₁ B ₁ M ₁ A ₁	For correct multiplying For Ug Shs. 837,000 For Ug Shs. 262,500 For correct division For 9375 Kenya Shillings
27.	(a) $WXY + 70^\circ + 30^\circ = 180^\circ$ $WXY + 100^\circ = 180^\circ$ $WXY = 180^\circ - 100^\circ$ $WXY = 80^\circ$ (b) Exterior + Interior = 180° Exterior = 180° - 150° Exterior = 30° Number of sides = $\frac{360^\circ}{\text{Exterior angle}}$ $= \frac{360^\circ}{30^\circ}$ $= 12$ sides	M ₁ A ₁ A ₁ B ₁ B ₁ B ₁	For correct use of angle properties For WXY = 80° For exterior angle 30° For 12 sides
28.	(a) $6.5 \times 0.96 = 6.24$ $= 6.24$ (b) (i) Boys = 30% Girls = 30% + 20% = 50% Total = 30% + 50% = 80% Remaining = 100% - 80% = 20% Z = 40%	M ₁ A ₁ M ₁ A ₁ M ₁ A ₁	For correct method For 250 For forming equation For Z = 40%

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	(ii) $\frac{40}{100} \times 1800 \times 3 \text{ pens}$ $= 60 \times 1800 \times 3 \text{ pens}$ $= 3294 \text{ pens}$	M ₁ A ₁	For correct multiplying For 3294 pens		(b) (i) $(2t - 4)m = (t + 3)m$ $2t - t = 3 + 4m$ $t = 7m$ (ii) Perimeter = S + S + S + S $= 3t + t + 3 + (2t - 4)m$ $= 21m + 10m + 10m$ $= 41m$	M ₁ A ₁ M ₁ A ₁	For solving equation For t = 7m For correct substitution For 41m
29.	(a) $2h + 120^\circ + 30^\circ + 90^\circ = 360^\circ$ $2h + 120^\circ = 360^\circ - 120^\circ$ $2h = 240^\circ$ $h = 120^\circ$ (b) Let the income be Shs. 180,000 $\frac{360}{90} \times 90 \times r = \text{Shs. } 180,000 \times 360$ $90r = \text{Shs. } 180,000 \times 360$ $r = \text{Shs. } 200,000 \times 360$	M ₁ A ₁ M ₁ A ₁	For forming equation For h = 80° For correct method For Shs. 720,000	32.	(a) SKETCH  Distance = 1cm = 10km $\frac{1}{10} \text{cm} = 10 \text{km}$ Distance = 1cm = 10km $\frac{1}{10} \text{cm} = 10 \text{km}$ = 6cm ACCURATE DIAGRAM 	S ₁ L ₁ C ₁ A ₁	For correct sketch For distance 6 cm For distance 7cm For accurate angle 135° For accurate angle 270°
30.	(a) $1\frac{1}{2} : 30 \text{pm}$ $1\frac{1}{2} : 30 \text{Hrs}$ Duration = $1\frac{1}{2} \times \frac{30}{50} \text{ minutes}$ (b) $1\frac{1}{2} : 10 \text{pm}$ $1\frac{1}{2} : 10 \text{Hrs}$ (c) Distance = Speed x Time $= 80 \text{km/hr} \times \frac{1}{2} \text{ hr}$ Time = $\frac{1}{2} \times \frac{40}{80}$ $= 2\frac{1}{2} \text{ Hrs}$ Distance = $80 \text{km/hr} \times \frac{1}{2} \text{ hr}$ $= 40 \text{km} \times \frac{1}{2}$ $= 200 \text{km}$	B ₁ B ₁ B ₁ B ₁	For obtaining 50 minutes correctly For 1410Hrs For obtaining 2½ hrs duration For distance 200km	31.	(a) $7 - 2y \geq 3$ $7 - 2y \geq 3$ $-2y \geq 3 - 7$ $-2y \geq -4$ $2 \geq y$	M ₁ A ₁	For collection of like terms For 2 ≥ y