1	2	3
$\begin{array}{r} 1\ 4\ 6\ 3\ 9\ 1 \\ +\ \ \ 4\ 3\ 6\ 0\ 9 \\ \hline \boxed{1\ 9\ 0\ 0\ 0\ 0} \end{array}$	1cm rep. 15km 10cm rep. (15×10)km 10cm rep. 150km	(a). even (b). frequency

4	5	6
$V = L \times W \times H$ $V = 6m \times 5m \times 4m$ $V = 120m^3$ $V = (120 \times 1000)$ litres $V = 120,000$ litres	$T = (12:00 - 8:00) + 2hr$ $T = 4hr + 2hr$ $T = 6hrs$ The Journey took 6 hours	Hint: Comp. angles add up to $90°$ $t^o = 90° - 43°$ $\quad = 47°$

7	8	9
$= (246 \times 100) - 246$ $= 24,600 - 246$ $= 24,354$	$Av = \dfrac{sum\ of\ items}{number\ of\ items}$ $= \dfrac{61 + 52 + 48 + 21 + 58}{5}$ $= \dfrac{240}{5}$ $= 48$	$\begin{array}{r} 7,0\ 0\ 0,0\ 0\ 0 \\ 7\ 0\ 0,0\ 0\ 0 \\ +\ \ \ \ \ \ \ \ \ \ \ 7 \\ \hline \boxed{7,7\ 0\ 0,0\ 0\ 7} \end{array}$

10	11	12
$= 8 \times 1,000 + 5 \times 100,000$ $= 8,000 + 500,000$ $= 508,000$	$^-23 + 6 = {}^-17$ $^-17 + 6 = {}^-11$ $^-11 + 6 = {}^-5$ $^-5 + 6 = 1$ $^-23;\ ^-17;\ ^-11;\ ^-5;\ 1$	$= 850 + \left(850 \times \dfrac{20}{100}\right)$ $= 850 + 170$ $= 1,020$

13	14	15
Hint: Follow BODMAS $= (250 + 180) - 15 \div 3$ $= 430 - 5$ $= 425$	Hint: Neg. removes the brkts $3x - 5x + 2 = 0$ $^-2x + 2 - 2 = 0 - 2$ $\dfrac{^-2x}{^-2} = \dfrac{^-2}{^-2}$ $x = 1$	Hint: Prime numbers are numbers with only two factors i.e one and itself. $= 2, 3, 5, 7$

16	17	18
$1\ ha = 100a$ $0.25ha = \dfrac{25}{100} \times 100$ $= 25ares$	$\begin{array}{r} 1\ \ \ \ 1_{two} \\ +\ \ 1\ \ \ \ 1_{two} \\ \hline \boxed{1\ \ 1\ \ 0_{two}} \end{array}$	$n = \dfrac{360°}{ext.angle}$ $= \dfrac{360°}{20°}$ $= 18\ sides$

19	20	21
$3720 \div 60 = 62\ min\ 00sec$ $62 \div 60 = 1hr\ 2min$ Therefore: $3720sec = \underline{1hour\ 2mins}$	(a). $A \cap B = \{3, 11, 27\}$ (b). Set B is a <u>subset</u> of set A	$(100 - 16)\% \rightarrow 4,200F$ $84\% \rightarrow 4,200F$ $1\% \rightarrow \dfrac{4,200}{84}$ $100\% \rightarrow \dfrac{4,200 \times 100}{84}$ $\rightarrow 5,000Frw$

| 22 | Seventy five and twenty seven hundredths

Or: Seventy five point two seven | 23 | <table><tr><td>2</td><td>624</td><td>208</td></tr><tr><td>2</td><td>312</td><td>104</td></tr><tr><td>2</td><td>156</td><td>52</td></tr><tr><td>2</td><td>78</td><td>26</td></tr><tr><td>3</td><td>39</td><td>13</td></tr><tr><td>13</td><td>13</td><td>13</td></tr><tr><td></td><td>1</td><td>1</td></tr></table> $= 16 \times 3 \times 13$
$= 624$ | 24 | $4S = 164m$
$S = (164 \div 4)m$
$S = 41m$
$A = S \times S$
$A = 41m \times 41m$
$A = 1,681m^2$ |

23 table (expanded):

2	624	208
2	312	104
2	156	52
2	78	26
3	39	13
13	13	13
	1	1

$= 16 \times 3 \times 13$
$= 624$

25

$$6\ .\ 0\ 0\ 0$$
$$-\ 2\ .\ 1\ 7\ 4$$
$$\boxed{3\ .\ 8\ 2\ 6}$$

26 Hint: First reduce all fractions to the lowest terms then use BODMAS

$= \dfrac{3}{4} \times \dfrac{2}{3} + \dfrac{1}{2}$

$= \dfrac{1}{2} + \dfrac{1}{2} = \dfrac{1+1}{2} = \dfrac{2}{2} = 1$

27 Side b $= (15m + 6m) = 21m$

$A = \dfrac{h(a + b)}{2}$

$= \dfrac{8(15 + 21)}{2} m^2$

$= (4 \times 36)\ m^2$

$= 144 m^2$

28

8 guests $= 1$ table

1 guest $= \dfrac{1}{8}$ table

235 guests $= \dfrac{1 \times 235}{8}$ tables

$= 29$ tables and 3 guest rem.

$= 29 + 1 = 30$ tables

29

(a). $Ni = \dfrac{D}{Li} = \dfrac{5540m}{20m} = 277$

(b). $Np = Ni + 1$

$= 277 + 1$

$= 278$ poles

30

Each $= (4500 \div 15) = 300F$

Rest $= (300 + 75) = 375F$

Paid $= (4500 \div 375) = 12$ chrn

Unable to pay $= 15 - 12$

$= \underline{3\ children}$

31

TSA $= \pi r(r + l)$

$= 3.14 \times 6\ (6 + 10)$

$= 18.84 \times 16$

$= 301.44 cm^2$

Note: first find the height

$h = \sqrt{H^2 - b^2}$

$= \sqrt{10^2 - 6^2}$

$= \sqrt{100 - 36}$

$= \sqrt{64\ cm^2}$

$= 8cm$

Vol $= \dfrac{1}{3}\pi r^2 h$

$= \dfrac{3.14 \times 6 \times 6 \times 8}{3}$

$= 301.44\ cm^3$

32

$T = \dfrac{Product\ of\ Time}{Difference\ of\ Time}$

$= \dfrac{4 \times 3}{4 - 3}\ hrs$

$= \dfrac{12}{1}\ hrs$

$= 12$ hours

33

	1st	2nd	mix
Qty	(9-4)	4	9
Px/kg	n	300	500

$(5 \times n) + (4 \times 300) = (9 \times 500)$

$5n + 1200 = 4500$

$5n = 4500 - 1200$

$\dfrac{5n}{5} = \dfrac{3300}{5}$

$n = 660Frw$

Therefore the cost of the second type is 660F/kg.

34

(a). $D = S \times T$

$= 60km/hr \times 3hr$

$= 180km$

The distance from town A to town B is 180km.

(b). $A.S = \dfrac{Total\ Distance}{Total\ Time\ Taken}$

$= \dfrac{180km + 180km}{3hr + 2hr}$

$= \dfrac{360km}{5hr}$

$= 72km/hr$

35

(a). First year

$I = \dfrac{PTR}{100} = \dfrac{180000 \times 1 \times 10}{100} = 18,000Frw$

$A = P + I = 180,000 + 18,000 = 198,000Frw$

Second year

$I = \dfrac{PTR}{100} = \dfrac{198000 \times 1 \times 10}{100} = 19,800Frw$

Compound Interest $= 18,000F + 19,800F = 37,800Frw$

(b). Amount $=$ Principal $+$ Compound Interest

$= 180,000F + 37,800F$

$= 217,800Frw$