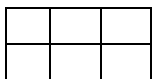


Ch - 9: Boxes and Sketches

Shapes for an open box (Pg. No. 128)

1. Draw more shapes which will not fold to make an open box.

Soln:



Practice time (Pg. No. 133)

1. Make drawing to show how the following bridge will look (diagram in book)

\*From the top

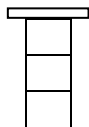
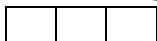
\*From the front

\*From the side

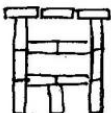
Soln:

From the top

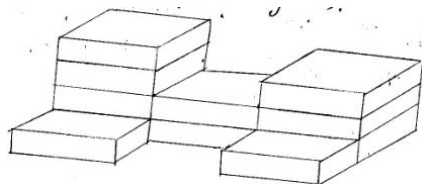
From the side



From the front



2. Make a deep drawing of the model (Refer Pg. No. 133 for diagram)



Ch - 10: Tenths and Hundredths

At the market (Refer Pg. No. 139 math magic)

4. Cost of a soap is ₹8.75. Arun has a five - rupee coin, 2 one - rupee coins and 4 half - rupee coins. Write in rupees what money he will get back.

Soln: Total money with Arun

$$= (\text{Rs } 5 \times 1) + (\text{Re. } 1 \times 2) (\text{Rs. } 4 \times 0.5)$$

$$= 5 + 2 + 2$$

$$= \text{Rs. } 9$$

Cost of one soap = Rs. 8.75

Money that Arun will get back = Rs. 9 - Rs. 8.75

$$= \text{Re. } 0.25 \text{ (or) } 25 \text{ paise}$$

Ans: Arun will get back Re. 0.25

5. Kannan has Rs. 60 Answer the following:

a) An egg costs two and a half rupees. How much will one and a half dozen cost?

Soln:

Cost of an egg	=	Rs. 2.50	
One and a half dozen eggs	=	(12 + 6) eggs	
	=	18 eggs	
Cost of 18 eggs	=	2.50 × 18	$\frac{2.50 \times 18}{2000}$
Cost of 18 eggs	=	Rs. 45	$\frac{2500}{4500}$
Ans: The cost of one and a half dozen eggs is		Rs. 45	

b) How many pens can Kannan buy? How much money is left?

Soln: Cost of 18 eggs	=	Rs. 45	
Money left	=	Rs. 60 - Rs. 45	
	=	Rs. 15	$\frac{6.50 \times 2}{1300}$
Cost of 1 pen	=	Rs. 6.50	
So, Kannan can buy two pens for Rs. 13.			
Money left with Kannan	=	Rs. 15 - Rs. 13 = Rs. 2	
Ans: Money left with Kannan is Rs. 2			

Write in metres [Pg. No. 142]

i) 99 centimetre

$$1 \text{ cm} = \frac{1}{100} \text{ m}$$

$$99 \text{ cm} = \frac{99}{100} = 0.99 \text{ m}$$

Ans: 0.99 metre

ii) 1 metre and 5 centimetre

$$1 \text{ m } 5 \text{ cm} = 1 \text{ m} + \frac{5}{100} \text{ m}$$

$$= 1 \text{ m} + 0.05 \text{ m} = 1.05 \text{ m}$$

Ans: 1.05 metre

Practice Time (Pg. No. 143)

1. Money from different countries (Refer table Pg. No. 143)

b) Mithun's uncle in America had sent him 10 USA dollars as a gift. Mithun used 350 rupees for a school trip. How much money was left with him? [1 Dollar = Rs. 39.70]

Soln: Money received by Mithun	=	10 USA Dollars
1 USA Dollar	=	Rs. 39.70
10 USA Dollars	=	39.70 × 10 = Rs. 397
Money spent on school trip	=	Rs. 350
Money left with him	=	Rs. 397 - Rs. 350
	=	Rs. 47

Ans: Money left with Mithun is Rs. 47.

- c) Majeed's father is working in U.A.E. He gets 1000 Dirham as salary. Arun's father who is working in Sri Lanka gets 2000 Sri Lanka Rupees. Who gets more Indian Rupees as salary?

[1Dirham = Rs. 10.80, 1 Sri Lanka Rupees = Rs. 0.37]

$$\begin{aligned} \text{Majeed's father's salary} &= 1000 \text{ Dirham} \\ &= 1000 \times \text{Rs. } 10.80 \\ &= \text{Rs. } 10800 \\ \text{Arun's father's salary} &= 2000 \text{ Sri Lankan Rupees} \\ &= 2000 \times \text{Rs. } 0.37 \\ &= \text{Rs. } 740 \end{aligned}$$

Ans: Hence, Majeed's father gets more Indian rupees.

- d) Leena's aunty brought a present for her from China. It cost 30 Yuan. Find what it costs in Indian rupees. [1 Yuan = Rs. 5.50]

$$\begin{aligned} \text{Soln: } 1 \text{ Yuan} &= \text{Rs. } 5.50 \\ 30 \text{ Yuan} &= 30 \times 5.50 = \text{Rs. } 165 \\ \text{Ans: } 30 \text{ Yuan} &= \text{Rs. } 165 \end{aligned}$$

- e) Astha wants some Hong Kong Dollars and Won.

1. How many won can she change for Rs. 4? For Rs. 400?

[1 won = Re. 0.04]

$$\begin{aligned} \text{Soln: } 1 \text{ won} &= \text{Rs. } 0.04 \\ 100 \text{ won} &= 100 \times 0.04 = \text{Rs. } 4 \\ \text{For Rs. } 4 &= 100 \text{ won} \\ \text{For Rs. } 400 &= 100 \times 100 = 10000 \text{ won} \\ \text{Ans: Hence, Astha gets } 100 \text{ won for Rs. } 4 \text{ and for Rs. } 400 & \text{ she gets } 10000 \text{ won.} \end{aligned}$$

2. How many Hong Kong Dollars can she change for Rs. 508?

[1HK Dollar = Rs.5.10]

$$\begin{aligned} \text{Soln: } 1 \text{ HK Dollar} &= \text{Rs. } 5.10 \\ \text{Rs. } 508 &= ? \text{ HK Dollar} \\ &= \frac{508}{5.10} \\ &= \frac{508 \times 10}{5.10 \times 10} = \frac{5080}{51} \quad 99.607 \\ &= 99.61 \text{ HK Dollar} \end{aligned}$$

Ans: 99.61 HK Dollars Astha can change for Rs. 508

$$\begin{array}{r} 51 \overline{)5080} \\ \underline{459} \phantom{0} \\ 490 \phantom{0} \\ \underline{459} \phantom{0} \\ 310 \phantom{0} \\ \underline{306} \phantom{0} \\ 400 \phantom{0} \\ \underline{357} \phantom{0} \\ 3 \end{array}$$

Refer Pg. No. 145

5. The temperature in these cities was also noted at 3 a.m. on the same day. Look at the table and answer the following questions.

City	Temperature	
	At 3p.m.	At 3a.m.
Chennai	29.9	21.1
Mumbai	35.1	19.0
Thipuram	33.5	21.6
Kolkata	26.6	13.1
Bhopal	25.9	9.8
Srinagar	8.1	1.3
Guwahati	24.8	12.8
Jaipur	23.2	10.2

- a) Which place had the lowest temperature at 3 a.m.? Imagine yourself to be there and describe how it would feel.

Soln: Srinagar

The temperature is 1.3°C means it is very cold and the water in pipes will be frozen.

- b) What is the difference between the temperature at 3 p.m. and 3 a.m. in Chennai? In Bhopal?

Soln. \*Chennai

$$\begin{aligned} \text{Temperature at 3 p.m.} &= 29.9^\circ\text{C} \\ \text{Temperature at 3 a.m.} &= 21.1^\circ\text{C} \\ \text{Difference} &= 29.9^\circ\text{C} - 21.1^\circ\text{C} \\ &= 8.8^\circ\text{C} \end{aligned}$$

Ans: 8.8°C

\*Bhopal

$$\begin{aligned} \text{Temperature at 3 p.m.} &= 25.9^\circ\text{C} \\ \text{Temperature at 3 a.m.} &= 9.8^\circ\text{C} \\ \text{Difference} &= 25.9^\circ\text{C} - 9.8^\circ\text{C} \\ &= 16.1^\circ\text{C} \end{aligned}$$

Ans: = 16.1°C

Ch -11: Area and Its Boundary

Practice Time (Pg. No. 148)

1. Arbaz plans to tile his kitchen floor with green square tiles. Each side of the tiles is 10cm. His kitchen is 220cm in length and 180cm wide. How many tiles will he need?

$$\begin{aligned} \text{Soln: Length of the kitchen} &= 220\text{cm} \\ \text{Breadth of the kitchen} &= 180\text{cm} \\ \text{Area of the kitchen} &= \ell \times b \\ &= 220 \times 180 \\ &= 39600 \text{ sq.cm} \end{aligned}$$

$$\begin{aligned}
\text{Side of a tile} &= 10\text{cm} \\
\text{Area of a tile} &= \text{side} \times \text{side} \\
&= 10 \times 10 \\
&= 100\text{sq. cm} \\
\text{No. of tiles required} &= \frac{\text{Area of the kitchen}}{\text{Area of the tiles}} \\
&= \frac{39600}{100} = 396
\end{aligned}$$

Ans: Arbaz need 396 tiles.

2. A thin wire 20cm long is formed into a rectangle. If the width of this rectangle is 4cm. What is its length?

$$\begin{aligned}
\text{Soln: Perimeter of a rectangle} &= 20\text{cm} \\
\text{(Breadth) width} &= 4\text{cm} \\
\text{Length} &= ? \\
\text{Perimeter} &= 2 \times (\ell + b) \\
20 &= 2 \times (\ell + 4) \\
\frac{20}{2} &= \ell + 4 \\
10 &= \ell + 4 \\
\ell &= 10 - 4 \\
\text{Length} &= 6\text{cm}
\end{aligned}$$

Ans: Length of the wire is 6cm

3. A square carrom board has a perimeter of 320cm. How much is its area?

$$\begin{aligned}
\text{Soln: Perimeter} &= 320\text{cm} \\
\text{Perimeter} &= 4 \times \text{side} \\
320 &= 4 \times \text{side} \\
\frac{320}{4} &= \text{side} \\
\text{Side} &= 80\text{cm} \\
\text{Area of a carrom board} &= \text{side} \times \text{side} \\
&= 80 \times 80 \\
&= 6400\text{ sq. cm}
\end{aligned}$$

Ans: Area of the carrom board is 6400 sq. cm.

4. Kabir made a greeting card of perimeter 40cm and area 100 sq. cm. Find the length and width of the card.

$$\begin{aligned}
\text{Soln: Perimeter} &= 40\text{cm} \\
\text{Length} &= ? \\
\text{Width} &= ? \\
\text{Area} &= 100\text{ sq.cm} \\
\text{Perimeter} &= 2 \times (\ell + b) \\
2 \times (\ell + b) &= 40\text{cm}
\end{aligned}$$

$$\ell + b = \frac{40}{2} = 20\text{cm}$$

$$\therefore \ell + b = 20\text{cm}$$

Let us assume,  $\ell = 10\text{cm}$   $b = 10\text{cm}$

$$\begin{aligned}
\text{Check using area} &= 100\text{sq.cm} \\
\ell \times b &= 100\text{sq. cm} \\
10 \times 10 &= 100
\end{aligned}$$

Ans: So, length = 10cm, Breadth = 10cm

King's Story (Refer Pg. No. 157)

5. What rectangles can be made with 100 metres of wire? Discuss which of these rectangles will have the biggest area.

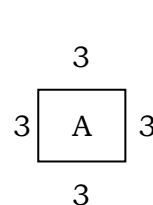
Soln: With 100 metre of wire, the following rectangles can be made.

$$\begin{aligned}
5\text{m} \times 45\text{m} &= 225\text{ sq. m} \\
15\text{m} \times 35\text{m} &= 525\text{ sq. m} \\
30\text{m} \times 20\text{m} &= 600\text{ sq. m} \\
10\text{m} \times 40\text{m} &= 400\text{ sq. m}
\end{aligned}$$

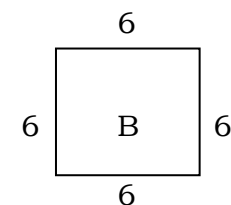
Ans: The area with 600 sq. m will be the biggest rectangle with length 30m and breadth 40m.

Practice time (Pg. No. 154)

Draw a square of 9 square cm. write A on it Draw another square with double the side. Write B on it.



$$\begin{aligned}
\text{Side} &= 3\text{cm} \\
\text{Area} &= 9\text{ sq. m} \\
\text{Perimeter} &= 12\text{m}
\end{aligned}$$



$$\begin{aligned}
\text{Side} &= 6\text{cm} \\
\text{Area} &= 36\text{sq. cm} \\
\text{Perimeter} &= 24\text{m}
\end{aligned}$$

1. The perimeter of square A is 12 cm.
2. The side of a square B is 6 cm.
3. The area of the square B is 4 times the area of square A.
4. The area of square B is 36 square cm.
5. The perimeter of square B is 24 cm.
6. The perimeter of square B is 2 times the perimeter of square A.

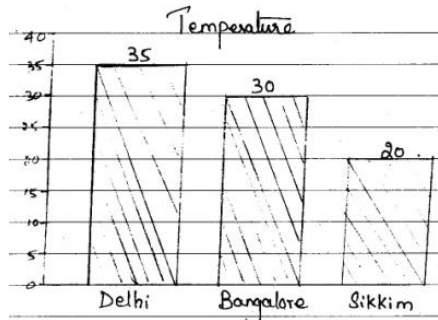
Ch - 12: Smart Chart

Pg. No. 165

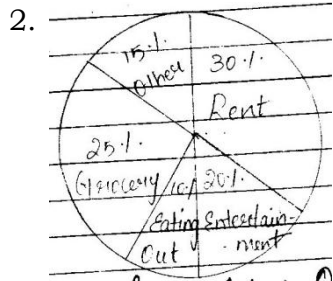
1. On any one day, choose any three cities and record their temperature from the TV (or) Newspaper (or) in your notebook (for eg) if the temperature in Delhi - 35°, Bangalore - 30° and Sikkim 20° and ask few questions to your friends. Make bar

chart for the same.

Solution:



- Which city is the hottest among the three?  
Delhi
- Which is the coldest city among the given cities?  
Sikkim
- What is the difference in temperature in Bangalore and Sikkim?  
10°



The above pie chart shows how Mr. Dave distributes his monthly income into different house expenses.

- What portion of the monthly income does Mr. Dave spend on entertainment? Ans: 20%
- In which of the following categories does Mr. Dave spend the greatest portion of his income?  
Grocery
- Which graph would you choose to show the percentage of his monthly income?

Pie - Chart [Circle - Chart]

Tally Marks

- The number of fruit juice packs sold in a school canteen in a week are given below. Complete the table and answer the questions given below.

Juices	Tally Marks	Total
Apples		4
Orange	 	10
Mango	 	7
Grapes	 	9
Kiwi		3
Lime	 	7

- Which is the most popular juice?  
Orange Juice
- Which is the least favourite juice?  
Kiwi Juice
- Which pack of juice were sold the same?  
Mango and Lime Juice
- Find the total number of fruit juice packs sold in the canteen in one week.

$$4 + 10 + 7 + 9 + 3 + 7 = 40$$

Ans: Total number of fruit juice packs sold in one week is 40

Ch - 13: Ways To Multiply and Divide

- Do these in your notebook using Bela's method: (Pg. No. 171)

b) $188 \times 91$	e) $360 \times 12$	f) $163 \times 42$
$\begin{array}{r} 188 \\ \times 91 \\ \hline + 188 \\ \hline 16920 \\ \hline 17108 \end{array}$	$\begin{array}{r} 360 \\ \times 12 \\ \hline + 720 \\ \hline 4320 \end{array}$	$\begin{array}{r} 163 \\ \times 42 \\ \hline + 326 \\ \hline 6520 \\ \hline 6846 \end{array}$

Ans: 17108

Ans: 4320

Ans: 6846

- A baby blue whale drinks around 200l of milk in one day. Just imagine how much milk that is! Find out in how many days your family would use 200l milk. How much milk would the baby blue whale drink in eight months?

Soln: Milk consumed by baby whale in 1day = 200l  
In 30days =  $200 \times 30$   
= 6000l

Milk consumed by baby whale in 8 months =  $6000 \times 8 = 48000l$

My family consumes 5l milk in a day.

Hence number of days for consuming 200l of milk  
=  $200 \div 5$   
= 40 days

Practice time (Pg. No. 177)

- Hariya took a loan to build his house. He has to pay back Rs. 2,750 every month for two years. How much will he pay back in 2 years?

Soln: Amount of loan that is to be paid every month = Rs. 2750  
Loan to be paid in a year =  $2750 \times 12$   
= Rs. 33000  
Loan to be paid in 2 years =  $33000 \times 2$   
= Rs. 66000

Ans: Hariya pays Rs. 66000 in 2 years

c) A company sells 1 litre of packed water for Rs. 12. A shopkeeper buys 240 litres of packed water. How much does he pay?

Soln: Selling price of 1ℓ packed water = ₹12  
 Hence, s.p of 240ℓ packed water =  $240 \times 12$   
 = ₹2880

Ans: Shop keeper has to pay ₹2880.

Practice time (Pg. No. 180)

4. Try to solve these using as few steps as you can

a)  $4428 \div 4$   $\frac{1000 + 50 + 7}{4}$

$$\begin{array}{r} 4 \overline{)4228} \\ \underline{4000} \\ 228 \\ \underline{-200} \\ 28 \\ \underline{-28} \\ 00 \end{array}$$

Ans:  $4228 \div 4 = 1000 + 50 + 7 = 1057$

b)  $770 \div 22$

$$\begin{array}{r} 30 + 5 \\ 22 \overline{)770} \\ \underline{-660} \\ 110 \\ \underline{-110} \\ 000 \end{array}$$

Hence,  $770 \div 22 = 30 + 5 = 35$

f)  $639 \div 13$   $\frac{40 + 9}{13}$

$$\begin{array}{r} 13 \overline{)639} \\ \underline{-520} \\ 119 \\ \underline{-117} \\ 2 \end{array}$$

Hence,  $639 \div 13 = 40 + 9 = 49$   
 (quotient +2 (remainder))

Practice time (Pg. No. 183)

5. There are 28 laddoos in 1kg. How many laddoos will be there in 12kg? If 16 laddoos can be packed in 1 box, how many boxes are needed to pack all these laddoos?

Soln: Number of laddoos in 1kg = 28  
 Number of laddoos in 12kg =  $28 \times 12$   
 = 336 laddoos  
 Number of laddoos in 1 box = 16  
 Total number of laddoos = 336  
 =  $336 \div 16$   
 = 21 boxes

Ans: 21 boxes needed

Practice Time (Pg. No. 186)

6. Do these divisions Check your results by multiplication.

a)  $438 \div 9$

$$\begin{array}{r} 48 \\ 9 \overline{)438} \\ \underline{-36} \\ 78 \\ \underline{-72} \\ 6 \end{array}$$

Verification

$Q \times d + R = D$

$48 \times 9 + 6 = 438$

$Q = 48$

$R = 6$

b)  $3480 \div 12$

$$\begin{array}{r} 290 \\ 12 \overline{)3480} \\ \underline{-24} \\ 108 \\ \underline{-108} \\ 000 \end{array}$$

Verificaion

$Q \times d + R = D$

$290 \times 12 + 0 = 3480$

$Q = 290$

$R = 0$

c)  $2475 \div 11$

$$\begin{array}{r} 225 \\ 11 \overline{)2475} \\ \underline{-22} \\ 27 \\ \underline{-22} \\ 55 \\ \underline{-55} \\ 00 \end{array}$$

Verificaion

$Q \times d + R = D$

$225 \times 11 + 0 = 2475$

$Q = 225$

$R = 0$

Ch – 14: How Big? How Heavy?

Pg. No. 193 (Verify the fig in Pg. No. 193)

1. How many matchboxes did he use to make it? What is its volume in matchboxes?

Soln:

First layer =  $4 \times 4 = 16$  matchboxes  
 Second layer =  $3 \times 3 = 9$  matchboxes  
 Third layer =  $2 \times 2 = 4$  matchboxes  
 Fourth layer =  $1 \times 1 = 1$  matchbox

$\therefore$  Total number of matchboxes used =  $16 + 9 + 4 + 1 = 30$  matchboxes

$\therefore$  The volume is 30 matchboxes.

Pg. No. 195

2. How can Ganesh and Dinga test their guesses before packing the cubes in the boxes? Discuss with your friend.

Soln: Let us take the first box:

Length = 20cm, width = 10cm, Height = 6cm

$$\begin{aligned} \text{Volume of the cube} &= \ell \times b \times h \text{ cu. units} \\ &= 20 \times 10 \times 6 \\ &= 1200 \text{ cubic cm} \end{aligned}$$

$\therefore 1200 \text{ cubic cm} < 4000 \text{ cubic cm.}$

Second box,

Length = 11cm, Width = 11cm, Height = 10cm

Volume =  $11 \times 11 \times 10 = 1210 \text{ cubic cm.}$

$1210 \text{ cubic cm} < 4000 \text{ cubic cm.}$

Third box,

Length = 15cm, Width = 9cm, Height = 10cm

$$\text{Volume} = 15 \times 9 \times 10$$

$$= 1350 \text{ cubic cm.}$$

$\therefore 1350 \text{ cubic cm} < 4000 \text{ cubic cm.}$

Total volume =  $1200 + 1210 + 1350 = 3760$

3760 which is less than Dinga's cube.

Pg.No. 197

7. a) For 6 days, each person will need.

Rice and flour = \_\_\_\_\_ g.

Soln: Rice = 100g, Flour = 100g

Rice & Flour =  $100\text{g} + 100\text{g}$

for 1 day = 200g

for 6 days =  $6 \times 200$

= 1200g

Pulses = \_\_\_\_\_ g

Soln: Pulses =  $\frac{1}{3}$  of weight of rice and flour

$$= \frac{1}{3} \times 1200 = 400\text{g}$$

Dried onions = \_\_\_\_\_ g.

Soln:

Dried onions = 10g

For 6 days =  $6 \times 10 = 60\text{g}$

b) How much of fresh tomatoes should be dried for 6 days for 10 people?

Soln: Fresh tomatoes = 10g

6 days =  $6 \times 10 = 60\text{g}$

For 10 people =  $60 \times 10$

= 600g

c) What is the total weight of food in each person's bag? (for 6 days)

Soln:

Item	Weight for 6 days
Rice and flour	1200g
Pulses	400g
Dried onions	60g
Oil	300g
sugar	300g
Milk powder	240g
Tea	60g
Dalia	240g
Salt	30g
Dried tomatoes	60
Total	2890g

8. How many coins are there in a sack of 5 rupee coins if it

Weight: (Note: A 5 rupee coin = 9g)

a) 18kg?

1kg = 1000g

18kg =  $18 \times 1000 = 18000\text{g}$

Given 1 coin weight = 9g

$$\text{Number of coins} = \frac{18000}{9} = 2000 \text{ coins}$$

c) 4500g?

given,

Weight of 1 coin = 9g

Weight of a sack = 4500g

$$\therefore \text{Number of coins} = \frac{4500}{9} = 500 \text{ coins}$$

e) 1kg and 125g?

1kg = 1000g

1kg and 125g =  $1000 + 125 = 1125\text{g}$

Given,

Weight of 1 coin = 9g

$$\text{Number of coins} = \frac{1125}{9} = 125 \text{ coins}$$

9. A 2 rupee coins weighs 6g. What is the weight of a sack with.

a) 2200 coins? \_\_\_\_\_ kg \_\_\_\_\_ g.

Soln:

Weight of 2 rupee coins = 6g

Hence,

Weight of 220 coins =  $2200 \times 6$

= 13200g

13200g = 13 kg and 200g (kg = 1000g)

10. If 100 one rupee coins weigh 485g then how much will 10000 coins weigh? \_\_\_\_\_kg \_\_\_\_g.

Soln:

Since, 100 one rupee coins weight= 485g

Hence, weight of 1 coin =  $\frac{485}{100}$

Hence, weight of 10000 coins =  $\frac{485}{100} \times 10000$

= 48500g

48500g = 48kg and 500g