

CHAPTER – 6

THE JUNK SELLER

Page No 60:

Question 1:

- What about you? Do you also find Maths difficult?
- What is the most difficult thing in your Maths books? _____
- What do you think is the easiest lesson? _____

Answer:

Disclaimer: The answer may vary from student to student based on his/her experience. It is highly recommended that the students prepare the answers on their own.

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Question 1: *Find out: how much for a cup of tea?*

Ask people and find out the cost of a cup of tea

- at a tea stall _____
- at a hotel _____

Answer:

Disclaimer: The purpose of this section is to make the students observe their surroundings. The answer may vary from student to student based on his/her experience. It is highly recommended that the students prepare the answers on their own.

Question 2: If a person who runs a tea stall earns Rs 30 in a day, how much will he earn in 10 days? _____

And in a month? _____

How did you get the answer? Discuss.

Answer:

Earning of the man in 1 day = Rs 30 Earning of the man in 10 days = Rs $30 \times 10 = \text{Rs } 300$

We do it in the following manner:

1 times 30 is 30. 10 times 30 is 300.

Suppose there are 30 days in a month. Earning of the man in a month or 30 days = Rs $30 \times 30 = \text{Rs } 900$ We do it in the following manner: 3 times 30 is 90. 30 times 30 is 900.

Question 3: Hariya and Babu want to buy a handcart for Rs 300.

I have taken a loan of Rs 300 from a bank for six months. I will pay Rs 51 every month to the bank.



Hariya

But I have taken a loan of Rs 300 from Chunnilal. After six months, I will pay Rs 360.



Babu

Who has to pay back more — Hariya or Babu? _____

Answer:

Hariya took a loan of Rs 300 from a bank for 6 months to buy a handcart. He pays Rs 51 every month to the bank. Money paid back by Hariya to the bank in 1 month = Rs 51 Money paid back by Hariya to the bank in 6 months = $\text{Rs } 51 \times 6 = \text{Rs } 306$

We do it in the following manner: $6 \times 50 = 300$

$6 \times 1 = 6$ So,

$300 + 6 = 306$ So, Hariya paid Rs 306 to the bank after 6 months.

Babu took a loan of Rs 300 from Chunnilal for 6 months to buy a handcart. He paid Rs 360 to Chunnilal after 6 months. Thus, Babu has to pay back more than Hariya for buying the handcart.

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Question 1: I have 9 rickshaws of my own. I give the rickshaws on rent. each for Rs 20 a day. On Sundays I do not take any money for them.

- In a week how much does Kiran earn from one rickshaw?

Answer:

We know that there are 7 days in a week. Earning of Kiran from 1 rickshaw per day = Rs 20 Earning of Kiran from 1 rickshaw for 7 days = $\text{Rs } 20 \times 7 = \text{Rs } 140$

We do it in the following manner: 2 times 7 is 14. 20 times 7 is 140.

Now, On Sunday, Kiran does not take any money for the rickshaws.

Therefore, earning of Kiran from 1 rickshaw for 6 days = $\text{Rs } 140 - \text{Rs } 20 = \text{Rs } 120$

We do it in the following manner:

$140 - 20 = 120$ So, Kiran will earn Rs 120 in a week from 1 rickshaw.

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Question 1: *Do it mentally and write the answers.*

- $2 \times 6 =$ _____
- $20 \times 6 =$ _____
- $2 \times 60 =$ _____
- $3 \times 42 =$ _____
- $4 \times 80 =$ _____
- $4 \times 81 =$ _____
- $9 \times 25 =$ _____
- $31 \times 9 =$ _____

Answer:

- 12
- 120

We do it in the following manner: 2 times 6 is 12. 20 times 6 is 120.

- 120
- 126

We do it in the following manner:

$3 \times 40 = 120$ Also,

$3 \times 2 = 6$ So, $120 + 6 = 126$

- 320

We do it in the following manner: 4 times 8 is 32. 4 times 80 is 320.

- 324

We do it in the following manner: $4 \times 80 = 320$ Also,
 $4 \times 1 = 4$ So, $320 + 4 = 324$

- 225

We do it in the following manner: $9 \times 20 = 180$ Also,
 $9 \times 5 = 45$ So, $180 + 45 = 225$

- 279

We do it in the following manner: $30 \times 9 = 270$ Also,
 $1 \times 9 = 9$ So, $270 + 09 = 279$

Question 2: Look up the rate list to see today's rates. Help Kiran to find out the cost of the junk.

- How much will Kiran pay for 31 kg newspaper? 1 kg newspaper costs Rs 5. 30 kg cost Rs $5 \times 30 =$ Rs 150. So for 31 kg she pays Rs ____.
- How much will Kiran pay for 42 kg newspaper?
- Also find the cost of:
 (a) 22 kg of plastic (b) 23 kg of waste paper (c) 12 kg of iron

Rate-List

Kind of Junk	Price of 1 Kg
1. Waste Paper	Rs 4/-
2. Newspaper	Rs 5/-
3. Iron	Rs 12/-

4. Brass Rs 170/-

5. Plastic Rs 10/-

Can you do this without writing? Guess the total money Kiran will pay to the junk collectors. Will it be — More than 600? — Less than 600?

Answer:

- Cost of 1 kg newspaper = Rs 5

Cost of 31 kg newspaper = $\text{Rs } 5 \times 31 = \text{Rs } 155$

We do it in the following manner: $5 \times 30 = 150$

$5 \times 1 = 5$ So, $150 + 5 = 155$

- Cost of 42 kg newspaper = $\text{Rs } 5 \times 42$

= Rs 210 We do it like this: $5 \times 40 = 200$ $5 \times 2 = 10$ So, $200 + 10 = 210$

(a) Cost of 1 kg plastic = Rs 10 Cost of 22 kg plastic = $22 \times \text{Rs } 10 = \text{Rs } 220$

We do it in the following manner: $22 \times 1 = 22$ $22 \times 10 = 220$

(b) Cost of 1 kg waste paper = Rs 4 Cost of 23 kg wastepaper = $\text{Rs } 4 \times 23 = \text{Rs } 92$

We do it in the following manner: $4 \times 20 = 80$ $4 \times 3 = 12$ So, $80 + 12 = 92$ (c)

Cost of 1 kg iron = Rs 12 Cost of 12 kg iron = $\text{Rs } 12 \times 12 = \text{Rs } 144$

We do it in the following manner:

	10	2
10	10×10 100	10×2 20
2	20	2×2 4

Add the numbers in the box

$$100 + 20 + 20 + 4 = 144$$

Total money paid to junk collectors will be = Rs 155 + Rs 210 + Rs 220 + Rs 92 + Rs 144 = Rs 821

$$155 + 210 + 220 + 92 + 144 = 821$$

So, the total money paid to the junk seller is more than Rs 600.

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Question 1:

• Kiran bought 1 kg plastic for Rs 10, but sold 1 kg plastic for Rs 12. How much money does she earn on selling 1 kg plastic? Rs _____ So, how much money does she earn for 63 kg? Rs _____

Answer:

Cost price of 1 kg plastic = Rs 10 Selling price of 1 kg plastic = Rs 12
 Profit on selling 1 kg plastic = Rs $(12 - 10)$ = Rs 2 Profit on selling 63 kg plastic = Rs 2×63 = Rs 126

We do it in the following manner: $2 \times 60 = 120$ $2 \times 3 = 6$

120+6=126 Hence, Kiran will earn Rs 126 on selling 63 kg plastic.

Question 1:

- How much money will Dinu pay for 32 kg iron?
- Kiran buys 1 kg iron for Rs 12 but sells it for Rs 14. How much does she earn when she sells 32 kg iron? Rs _____

Answer:

- Cost of 1 kg iron = Rs 14 Cost of 32 kg iron = $\text{Rs } 14 \times 32 = \text{Rs } 448$ We do it like this:

	10	4
30	30×10 300	30×4 120
2	10×2 20	2×4 8

Add the numbers in the box

$$300 + 120 + 20 + 8 = 448$$

So, Dinu will have to pay Rs 448 for 32 kg iron.

- Cost of 1 kg iron for Kiran = Rs 12

Selling price of 1 kg iron = Rs 14

Profit on selling 1 kg iron = $\text{Rs } (14 - 12) = \text{Rs } 2$

Profit on selling of 32 kg iron = $\text{Rs } 2 \times 32 = \text{Rs } 64$

We do it in the following manner: $2 \times 30 = 60$ $2 \times 2 = 4$

So, $60 + 4 = 64$

Thus, Kiran earns Rs 64 on selling 32 kg iron.

Question 2: I bought 1 kg newspaper for Rs 5, but sold it for Rs 6. How much money did I earn by selling 152 kg of newspaper? _____

Answer:

Cost of 1 kg newspaper = Rs 5 Selling price of 1 kg newspaper = Rs 6

Profit on selling 1 kg newspaper = Rs $(6 - 5) = \text{Rs } 1$

Profit on selling 152 kg newspaper = Rs $1 \times 152 = \text{Rs } 152$

I earned Rs 152 on selling 152 kg of newspaper.

Question 3: How much money will Dinu pay for 4 kg brass? _____
Guess the answer first.

Answer:

Cost of 1 kg brass = Rs 180 Cost of 4 kg brass = Rs $4 \times 180 = \text{Rs } 720$ We will do it as follows:

	100	80
4	4×100 400	4×80 320

Add the numbers in the box

$$400 + 320 = 720$$

Thus, Dinu will pay Rs 720 for 4 kg brass.

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Question 1: *First guess the answer and then calculate:*

(a) $37 \times 18 =$ (b) $45 \times 24 =$ (c) $69 \times 52 =$ (d) $77 \times 55 =$

(e) $142 \times 5 =$ (f) $382 \times 3 =$ (g) $2 \times 175 =$ (h) $4 \times 206 =$

Answer:

(a) Add the numbers in the box

	30	7
10	30×10 300	10×7 70
8	30×8 240	8×7 56

$$300 + 240 + 70 + 56 = 666$$

(b) Add the numbers in the box

	40	5
20	20×40 800	20×5 100
4	4×40 160	4×5 20

$$800 + 100 + 160 + 20 = 1080$$

(c) Add the numbers in the box

	60	9
50	60×50 3000	50×9 450
2	2×60 120	2×9 18

$$3000 + 450 + 120 + 18 = 3588$$

(d) Add the numbers in the box

	70	7
50	70×50 3500	50×7 350
5	5×70 350	5×7 35

$$3000 + 350 + 350 + 35 = 4235$$

(e) Add the numbers in the box

	100	40	2
5	100×5 500	40×5 200	5×2 10

$$500 + 200 + 10 = 710$$

(f) Add the numbers in the box

	300	80	2
3	300×3 900	80×3 240	3×2 6

$$900 + 240 + 6 = 1146$$

(g). Add the numbers in the box

	100	70	5
2	2×100 200	2×70 140	2×5 10

$$200 + 140 + 10 = 350$$

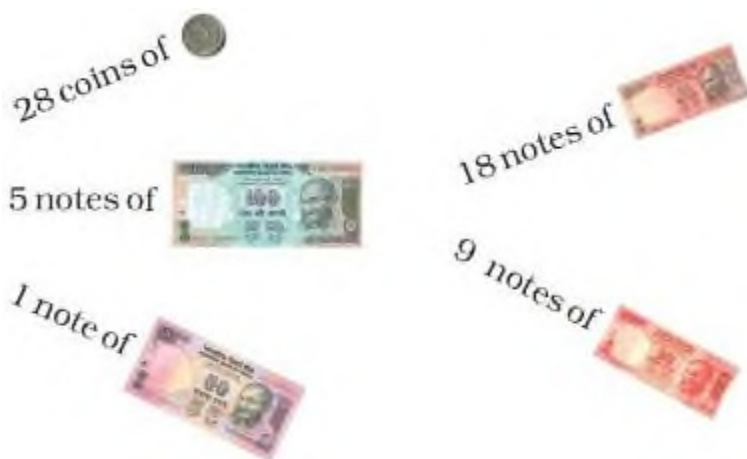
(h)

	200	6
4	4×200 800	4×6 24

$$800 + 24 = 824$$

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Question 1: Later she paid Rs 919 to the junk collectors. When she sold the junk she got these notes and coins from Dinu.



Now you make a record in her diary. Find out how much she earned this time.



Answer:

18 March 2007	
Money I paid = Rs 919	
Money I got – Rs	500
– Rs	50
– Rs	180
– Rs	180
– Rs	140
Total Rs	1050
	Rs 1050
	– Rs 919
Money I earned:	Rs 131

We do it as follows:

5 notes of 100 rupees

$$5 \times 100 = \text{Rs } 500$$

1 note of 50 rupees

$$1 \times 50 = \text{Rs } 50$$

18 notes of 10 rupees

$$18 \times 1 = 18$$

$$18 \times 10 = \text{Rs } 180$$

9 notes of 20 rupees

$$9 \times 2 = 18 \quad 9 \times 20 = \text{Rs } 180$$

28 coins of 5 rupees

$$20 \times 5 = 100$$

$$8 \times 5 = 40$$

$$100 + 40 = 140$$

$$28 \times 5 = \text{Rs } 140$$

$$\text{Money I got} = \text{Rs } 500 + \text{Rs } 50 + \text{Rs } 180 + \text{Rs } 180 + \text{Rs } 140 = \text{Rs } 1050$$

$$500 + 50 + 180 + 180 + 140 = 1050$$

$$\text{Money I earned} = \text{Rs } 1050 - \text{Rs } 919 = \text{Rs } 131$$

$$1050 - 919 = 0131$$