Chapter – 5

Interconcept

Ex 5.1

Question 1. Answer the following

5				
S.No	Speed	Time	Distance	
i	48 Km/Hour	2 Hours		
ii	35 Km/Hour	3 Hours		
iii	30 Km/Hour	5 Hours		
iv	50 Km/Hour	4 Hours		
v	20 Km/Hour	6 Hours		

Answer:

S.No	Speed	Time	Distance
i	48 Km/Hour	2 Hours	48 × 2 = 96 km
ii -	35 Km/Hour	3 Hours	35 × 3 = 105 km
	30 Km/Hour	5 Hours	30 × 5 = 150 km
iv	50 Km/Hour	4 Hours	50 × 4 = 200 km
v	20 Km/Hour	6 Hours	20 × 6 = 120 km

Question 2.

i. Distance covered in 2 hours at the speed of 20 miles/hour:

Answer:

 $20 \times 2 = 40$ miles

ii. Distance covered in 4 hours at the speed of 65 miles/hour:

Answer:

 $65 \times 4 = 260$ miles

iii. Distance covered in 5 hours at the speed of 48 Km/hour:

Answer: $48 \times 5 = 240$ km

iv. Distance covered in 6 hours at the speed of 80 Km/hour:

Answer:

 $80 \times 6 = 480 \text{ km}$

v. Distance covered in 3 hours at the speed of 42 Km/hour:

Answer:

 $42 \times 3 = 126 \text{ km}$

Question 3.

If Gopi ran 12 Hours at a speed of 14 Km/Hour, then how much distance did he ran?

Answer:

Distance = Speed × time = $14 \times 12 = 168$ km Distance = 168 km

Question 4.

If Raja rides motorcycle for 4 Hours at a speed of 30 Km/Hour, then how much distance did he go?

Answer:

Distance = Speed × time = $30 \times 4 = 120$ km Distance = 120 km

Ex 5.2

Question 1. Answer the following

S.No	Speed	Distance	Time (Hours)
i	35 Km/hour	280 Km	
ii	40 Km/hour	360 Km	
iii	45 Km/hour	315 Km	
iv	50 Km/hour	300 Km	
v	55 Km/hour	275 Km	

S.No	Speed	Distance	Time (Hours)
i 35	35 Km/Hour	280 Km	Time = Distance Speed km
			$=\frac{280}{35}$ = 8 hours
ii .	40 Km/Hour	360 Kms	Time = $\frac{360}{40}$ = 9 hours
ш	45 Km/Hour	315 Km	Time = $\frac{315}{45}$ = 7 hours
iv	50 Km/Hour	300 Km	Time = $\frac{300}{50}$ = 6 hours
v	55 Km/Hour	275 Km	$Time = \frac{275}{55} = 5 hours$

Question 2.

Wilson reached 240 Km at the speed of 60 Km/hour. How much time did he travelled?

Answer:

Time = $\frac{\text{Distance}}{\text{Speed}} = \frac{360}{40} = 4 \text{ hours}$

Question 3.

Anbarasan travelled 350 Km at the speed of 70 Km/hour. Find the time taken for his travel.

Time taken = $\frac{\text{Distance}}{\text{Speed}} = \frac{350}{70} = 5 \text{ hours}$

Question 4.

Nazar travelled 360 Km at the speed of 90 Km/hour. Find the time taken for his travel.

Answer:

Time = $\frac{\text{Distance}}{\text{Speed}}$ = $\frac{360}{90}$ = 4 hours

Question 5.

Fathima reached 480 Km at the speed of 120 Km/hour. How much time did she travelled?

Answer:

Time = $\frac{\text{Distance}}{\text{Speed}}$ = $\frac{480}{120}$ = 4 hours

Ex 5.3

Question 1. Answer the following

S.No	Distance	Money	Total cost	
i	180 Km	₹5 per km		
ii	220 Km	₹8 per km		
iii	315 Km	₹4 per km		
iv	420 Km	₹6 per km		
v	580 Km	₹3 per km		

Answer:

S.No	Distance	Money	Total cost
1	180 Km	₹5 per Km	180 × 5 = ₹ 900
ii	220 Km	₹8 per Km	220 × 8 = ₹ 1760
iii	315 Km	₹4 per Km	315 × 4 = ₹ 1260
iv	420 Km	₹6 per Km	420 × 6 = ₹ 2520
v	580 Km	₹3 per Km	580 × 3 = ₹ 1740

Question 2.

Sneha spent ₹ 7 per Km for a trip and she travelled 850km. How much is the total cost of the trip?

Answer:

Cost per kilometer is \gtrless 7 Cost for 850 km = 850 × \gtrless 7 = \gtrless 5950

Question 3.

Prabhu spent ₹ 9 per Km for o trip and he travelled 580km. How much is the total cost of the trip?

Answer:

Cost per kilometer is $\gtrless 9$ Cost for 850 km = 580 × $\gtrless 9$ = $\gtrless 5220$

Ex 5.4

Question 1. Answer the following

(i) 3 Km 500 m = _____

Answer:

3 Km 500 m = 3 + 500 × $\frac{1}{1000}$ = 3 + $\frac{1}{2}$ = 3 $\frac{1}{2}$ km

(ii) 25 Km 250 m = ____ Answer: 25 Km 250 m = 25 + 250 × $\frac{1}{1000}$ = 25 + $\frac{1}{4}$ = 25 $\frac{1}{4}$ km (iii) 17 Km 750 m = _____ Answer: 17 Km 750 m = 17 + 750 × $\frac{1}{1000}$ = 17 + $\frac{3}{4}$ = 17 $\frac{3}{4}$ km (iv) 35 Km 250 m = _____ Answer: 35 Km 250 m = 35 + 250 × $\frac{1}{1000}$ = 35 + $\frac{1}{4}$ = 35 $\frac{1}{4}$ km (v) 45 Km 750 m = _____ Answer:

45 Km 750 m = 45 + 750 × $\frac{1}{1000}$ = 45 + $\frac{3}{4}$ = 45 $\frac{3}{4}$ km

Question 2. Convert into Hours: [In fraction]

(i) 10 minutes

Answer: 10 minutes = $10 \times 1/60$ = 1/6 hours

(ii) 25 minutes

Answer:

 $25 \text{ minutes} = 25 \times 1/60$ = 5/12 hours

(iii) 36 minutes

Answer:

36 minutes = 36 × 1/60 = 3/5 hours

(iv) 48 minutes

Answer: 48 minutes = 48 × 1/60 = 4/5 hours

(v) 50 minutes

Answer:

50 minutes = $50 \times 1/60$ = 5/6 hours

Question 3. Convert into minutes:

(i) 5/6 Hour

Answer:

5/6 Hour = $5/6 \times 60$ = 50 minutes

(ii) 8/10 Hour

Answer:

8/10 Hour = 8/10 × 60 = 48 minutes

(iii) 4/6 Hour

Answer:

4/6 Hour = $4/6 \times 60$ = 40 minutes

(iv) 5/10 Hour

Answer:

5/10 Hour = $5/10 \times 60$ = 30 minutes

(v) 6/10 Hour

Answer:

6/10 Hour = 6/10 × 60 = 36 minutes

Question 4. Match the following:

(i) ½ part of ₹1	-	₹ 100
(ii) ‡ part of ₹ 4	-	50 paise
(iii) ½ part of ₹ 10	-	₹ 75
(iv) ³ / ₄ part of ₹ 100	-	₹1
(v) ½ part of ₹ 200	-	₹5

Answer:

(i) ½ part of ₹ 1	-	50 paise
(ii) 1 /4 part of ₹ 4	-	₹1
(iii) ½ part of ₹ 10	-	₹5
(iv) ³ / ₄ part of ₹ 100	-	₹ 75
(v) ½ part of ₹ 200	-	₹ 100

Question 5.

Write the $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ parts of the following (i) ₹ 200

 $\frac{1}{4} \text{ part of ₹ 200} = \frac{1}{4} \times 200 = \frac{200}{4} = ₹ 50$ $\frac{1}{2} \text{ part of ₹ 200} = \frac{1}{2} \times 200 = \frac{200}{2} = ₹ 100$ $\frac{3}{4} \text{ part of ₹ 200} = \frac{3}{4} \times 200 = \frac{600}{4} = ₹ 150$

(ii) ₹ 10,000

Answer:

$$\frac{1}{4} \text{ part of ₹ 10,000} = \frac{1}{4} \times 10,000 = \frac{10000}{4} = ₹ 2500$$

$$\frac{1}{2} \text{ part of ₹ 10,000} = \frac{1}{2} \times 10,000 = \frac{10000}{2} = ₹ 5000$$

$$\frac{3}{4} \text{ part of ₹ 10,000} = \frac{3}{4} \times 10,000 = \frac{30000}{4} = ₹ 7500$$

(iii) ₹ 8,000

Answer:

$$\frac{1}{4} \text{ part of } \underbrace{\$}{8,000} = \frac{1}{4} \times \$,000 = \frac{8000}{4} = \underbrace{\$}{2000}$$
$$\frac{1}{2} \text{ part of } \underbrace{\$}{8,000} = \frac{1}{2} \times \$,000 = \frac{8000}{2} = \underbrace{\$}{4000}$$
$$\frac{3}{4} \text{ part of } \underbrace{\$}{8,000} = \frac{3}{4} \times \$,000 = \frac{24000}{4} = \underbrace{\$}{6000}$$

(iv) ₹ 24,000

Answer:

$$\frac{1}{4} \text{ part of ₹ 24,000} = \frac{1}{4} \times 24,000 = \frac{24000}{4} = ₹ 6000$$

$$\frac{1}{2} \text{ part of ₹ 24,000} = \frac{1}{2} \times 24,000 = \frac{24000}{2} = ₹ 12000$$

$$\frac{3}{4} \text{ part of ₹ 24,000} = \frac{3}{4} \times 24,000 = \frac{72000}{4} = ₹ 18000$$

(iv) ₹ 50,000

Answer:

$\frac{1}{4}$	part of ₹ 50,000 = $\frac{1}{4}$	× 50,000 = $\frac{50000}{4}$ = ₹ 12500
$\frac{1}{2}$	part of ₹ 50,000 = $\frac{1}{2}$	× 50,000 = $\frac{50000}{2}$ = ₹ 25000
$\frac{3}{4}$	part of ₹ 50,000 = $\frac{3}{4}$	× 50,000 = $\frac{150000}{4}$ = ₹ 37500

Interconcept InText

Activity (Text Book Page No.41)

Question 1.

Write distance, bus fares and travel time from your town to the nearest cities:

Distance, Time and money are interrelated in our daily life situations. Can you discuss and complete the table given below?

5. No	Departure location	Going to town	Distance	Time	Bus Charge

Answer:

S.No	Departure location	Going to town	Distance	Time	Bus Charge
1,	Chennai	Madurai	462 km	8 hrs	₹600

Question 2.

Distances are given below from Chennai to Kanyakumari

City	Distance [KM]
Chennai	0 km
Tambaram	35 km
Tindivanam	128 km
Villupuram	172 km
Trichy	332 km
Madurai	462 km

Virudunagar	520 km
Tirunelveli	624 km
Kanya Kumari	707 km

Complete the following:

1.	The	distance	between	Chennai	to	Tindivanam	

Answer:

128 km

2. The distance between Chennai to Villupuram _____

Answer: 172 km

3. The distance between Chennai to Trichy _____

Answer: 332 km

4. The distance between Trichy to Madurai

Answer: 462 – 332 = 130 km

5. The distance between Madurai to Tirunelveli

Answer: 624 – 462 = 162 km

6. The distance between Chennai to Kanyakumari _____

Answer: 707 km

7. The distance between Trichy to Kanyakumari

Answer: 707 – 332 = 375 km

8. The distance between Tindivanam to Tirunelveli

Answer: 624 – 128 = 496 km

9. The distance between Chennai to Madurai

Answer:

462 km

10. Which is the longest distance? Chennai to Trichy/Chennai to Madurai?

Answer: Chennai to Madurai

Activity (Text Book Page No.43)

Question 1.

The distance between planets and sun

Planets	Distance from sun (KM)			
Mercury	57909175			
Venus	108200000			
Earth	149600011			
Mars	227940000			
Jupiter	778333000			
Saturn	1429400000			
Uranus	2870990000			
Neptune	4504300000			

Answer the following from the given table:

1.The distance between Earth and Sun is _____.

Answer: 149600011

2. _____ Planet is in the longest distance from the sun.

Neptune

3. The Nearest Planet to Sun is _____.

Answer:

Mercury

4. Arrange the planets in ascending order depending upon the Planets distance from the sun.

Answer:

- Mercury
- Venus
- Earth
- Mars
- Jupiter
- Saturn
- Uranus
- Neptune

5. Arrange the planets in descending order depending upon the Planets distance from the sun.

Answer:

- Neptune
- Uranus
- Saturn
- Jupiter
- Mars
- Earth
- Venus
- Mercury