

**EXERCISE 16(A)**

1. Express each of the following statements in the percentage form:

(i) 13 out of 20

(ii) 21 eggs out of 30 are good

**Solution:**

(i) 13 out of 20

The statement in the percentage form is shown below

$$13 / 20 \times 100 = 13 / 2 \times 10$$

$$= 13 \times 5$$

$$= 65\%$$

(ii) The statement in the percentage form is shown below

$$21 / 30 \times 100 = 21 / 3 \times 10$$

$$= 7 \times 10$$

$$= 70\%$$

Hence, 70% of eggs are good

2. Express the following fractions as percent:

(i)  $3 / 200$

(ii)  $5 / 6$

(iii)  $65 / 80$

(iv)  $2 / 3$

**Solution:**

(i)  $3 / 200$

Fractions as percentage is shown below

$$3 / 200 \times 100 = 3 / 2$$

We get,

$$= 1.5\%$$

(ii)  $5 / 6$

Fractions as percentage is shown below

$$5 / 6 \times 100 = 500 / 6$$

On calculating, we get

$$= 83\frac{1}{3}\%$$

(iii)  $65 / 80$

Fractions as percentage is shown below

$$65 / 80 \times 100 = 65 / 8 \times 10$$

$$= 325 / 4$$

On further calculation, we get

$$= 81\frac{1}{4} \%$$

(iv)  $2/3$

Fractions as percentage is shown below

$$2/3 \times 100 = 200/3$$

On calculating, we get

$$= 66\frac{2}{3} \%$$

### 3. Express as percent:

(i) 0.10

(ii) 0.02

(iii) 0.7

(iv) 0.15

(v) 0.032

**Solution:**

(i) 0.10

The given decimal expressed in percent is as follows

$$0.10 \times 100 = 10 / 100 \times 100$$

We get,

$$= 10\%$$

(ii) 0.02

The given decimal expressed in percent is as follows

$$0.02 \times 100 = 2 / 100 \times 100$$

We get,

$$= 2\%$$

(iii) 0.7

The given decimal expressed in percent is as follows

$$0.7 \times 100 = 7 / 10 \times 100$$

We get,

$$= 70\%$$

(iv) 0.15

The given decimal expressed in percent is as follows

$$0.15 \times 100 = 15 / 100 \times 100$$

We get,

$$= 15\%$$

(v) 0.032

The given decimal expressed in percent is as follows

$$0.032 \times 100 = 32 / 1000 \times 100$$

We get,  
 $= 3.2\%$

**4. Convert into fractions in their lowest terms:**

**(i) 8%**

**(ii) 20%**

**(iii) 85%**

**(iv) 250%**

**(v)  $12\frac{1}{2}\%$**

**Solution:**

(i) 8%

Fraction in its lowest form is shown below

$$8 / 100 = 4 / 50$$

We get,

$$= 2 / 25$$

(ii) 20%

Fraction in its lowest form is shown below

$$20 / 100 = 2 / 10$$

We get,

$$= 1 / 5$$

(iii) 85%

Fraction in its lowest form is shown below

$$85 / 100 = 17 / 20$$

(iv) 250%

Fraction in its lowest form is shown below

$$250 / 100 = 25 / 10$$

On further calculation, we get

$$= 5 / 2$$

$$= 2\frac{1}{2}$$

(v)  $12\frac{1}{2}\%$

Fraction in its lowest form is shown below

$$(25 / 2) \% = 25 / 200$$

On further calculation, we get

$$= 5 / 40$$

$$= 1 / 8$$

**5. Express as decimal fractions:****(i) 25%****(ii) 108%****(iii) 95%****(iv) 4.5%****(v) 29.2%****Solution:****(i) 25%**

The statement expressed as decimal fraction is given below

$$25 / 100$$

$$= 0.25$$

Hence, the decimal fraction of 25% is 0.25

**(ii) 108%**

The statement expressed as decimal fraction is given below

$$108 / 100$$

$$= 1.08$$

Hence, the decimal fraction of 108% is 1.08

**(iii) 95%**

The statement expressed as decimal fraction is given below

$$95 / 100$$

$$= 0.95$$

Hence, the decimal fraction of 95% is 0.95

**(iv) 4.5%**

The statement expressed as decimal fraction is given below

$$4.5 / 100 = 45 / 1000$$

We get,

$$= 0.045$$

Hence, the decimal fraction of 4.5% is 0.045

**(v) 29.2%**

The statement expressed as decimal fraction is given below

$$29.2 / 100 = 292 / 1000$$

We get,

$$= 0.292$$

**6. Express each of the following natural numbers as percent:****(i) 7****(ii) 2****(iii) 19.5****(iv) 5.37**

**Solution:**

(i) 7

The given natural number expressed in percent is shown below

$$7 \times 100$$

$$= 700\%$$

(ii) 2

The given natural number expressed in percent is shown below

$$2 \times 100$$

$$= 200\%$$

(iii) 19.5

The given natural number expressed in percent is shown below

$$19.5 \times 100$$

$$= 1950\%$$

(iv) 5.37

The given natural number expressed in percent is shown below

$$5.37 \times 100$$

$$= 537\%$$

**EXERCISE 16(B)****1. Express****(i) Rs 5 as a percentage of Rs 25****(ii) 80 paise as a percent of Rs 4****(iii) 700 gm as a percentage of 2.8 kg****(iv) 90 cm as a percent of 4.5 m****Solution:**

(i) Rs 5 as a percentage of Rs 25

Rs 5 as a percentage of Rs 25 is given below

$$5 / 25 \times 100$$

$$= 5 \times 4$$

$$= 20\%$$

Hence, Rs 5 is 20% of Rs 25

(ii) 80 paise as a percent of Rs 4

80 paise as a percent of Rs 4 is given below

We know that,

$$\text{Rs } 4 = 400 \text{ paise}$$

$$80 / 400 \times 100$$

$$= 80 / 4$$

$$= 20\%$$

Hence, 80 paise is 20% of Rs 4

(iii) 700 gm as a percentage of 2.8 kg

700 gm as a percent of 2.8 kg is given below

We know that,

$$1 \text{ kg} = 1000 \text{ gm}$$

$$\text{Thus, } 2.8 \text{ kg} = 2800 \text{ gm}$$

So,

$$700 / 2800 \times 100 = 700 / 28$$

$$= 100 / 4$$

We get,

$$= 25\%$$

Hence, 700 gm is 25% of 2.8 kg

(iv) 90 cm as a percent of 4.5 m

90 cm as a percent of 4.5 m is given below

We know that,

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

$$\text{Thus, } 4.5 \text{ m} = 450 \text{ cm}$$

So,

$$90 / 450 \times 100 = 900 / 45$$

$$= 20\%$$

Hence, 90 cm is 20% of 4.5 m

**2. Express the first quantity as a percent of the second:**

**(i) 40 P, Rs 2**

**(ii) 500 gm, 6 kg**

**(iii) 42 seconds, 6 minutes**

**Solution:**

(i) 40 P, Rs 2

40 P as a percent of Rs 2 is shown below

We know that,

$$1 \text{ Rs} = 100 \text{ P}$$

$$\text{So, } 2 \text{ Rs} = 200 \text{ P}$$

$$40 / 200 \times 100 = 40 / 2$$

We get,

$$= 20\%$$

Hence, 40 P is 20 % of Rs 2

(ii) 500 gm, 6 kg

500 gm as a percent of 6 kg is shown below

We know that,

$$1 \text{ kg} = 1000 \text{ gm}$$

$$\text{So, } 6 \text{ kg} = 6000 \text{ gm}$$

$$500 / 6000 \times 100 = 500 / 60$$

$$= 50 / 6$$

We get,

$$= 25 / 3$$

$$= 8\frac{1}{3} \%$$

Hence, 500 gm is  $8\frac{1}{3} \%$  of 6 kg

(iii) 42 seconds 6 minutes

42 seconds as a percent of 6 minutes is shown below

We know that,

$$1 \text{ min} = 60 \text{ sec}$$

$$\text{So, } 6 \text{ min} = 360 \text{ sec}$$

$$42 / 360 \times 100 = 420 / 36$$

$$= 35 / 3$$

We get,

$$= 11\frac{2}{3} \%$$

Hence, 42 sec is  $11\frac{2}{3}$  % of 6 minutes

**3. Find the value of each of the following:**

**(i) 20% of Rs 150**

**(ii) 90% of 130**

**(iii) 15% of 2 minutes**

**(iv) 7.5% of 500 kg**

**Solution:**

(i) 20% of Rs 150

20% of Rs 150 is given below

$$20 / 100 \times 150 = 2 \times 15$$

We get,

$$= 30$$

Hence, 20% of Rs 150 is Rs 30

(ii) 90% of 130

90% of 130 is given below

$$90 / 100 \times 130 = 9 \times 13$$

We get,

$$= 117$$

Hence, 90% of 130 is 117

(iii) 15% of 2 minutes

15% of 2 minutes is given below

We know that,

$$1 \text{ min} = 60 \text{ sec}$$

$$\text{So, } 2 \text{ min} = 120 \text{ sec}$$

$$15 / 100 \times 120 = (15 \times 12) / 10$$

We get,

$$= 180 / 10$$

$$= 18 \text{ sec}$$

Hence, 15% of 2 min is 18 sec

(iv) 7.5% of 500 kg

7.5% of 500 kg is given below

$$7.5 / 100 \times 500 = 7.5 \times 5$$

We get,

$$= 37.5 \text{ kg}$$

Hence, 7.5% of 500 kg is 37.5 kg

**4. If a man spends 70% of his income, what percent does he save?**

**Solution:**

Let the total income of the man be = Rs 100

If a man spends 70% of his income, then total expense =  $70 / 100 \times 100$   
= Rs 70

Savings after his expenditure =  $100 - 70 = 30$

Hence, his savings in percent =  $30 / 100 \times 100$   
= 30%

Therefore, the man saved 30% of his total income

**5. A girl gets 65 marks out of 80. What percent marks did she get?**

**Solution:**

Total marks in the exam = 80

Marks obtained by a girl = 65

Her percentage =  $65 / 80 \times 100$   
=  $650 / 8$

We get,

= 81.25%

Therefore, the marks obtained by a girl in percentage is 81.25%

**6. A class contains 25 children, of which 6 are girls. What percentage of the class are the boys**

**Solution:**

Total number of children in the class = 25

Number of girls = 6

Number of boys =  $25 - 6$   
= 19 boys

Thus, percentage of boys in the class =  $19 / 25 \times 100$   
=  $19 \times 4$

We get,

= 76%

Therefore, there are 76% of boys in the class

**7. A tin contains 20 litres of petrol. Due to leakage, 3 litres of petrol is lost. What percent is still present in the tin?**

**Solution:**

Total quantity of petrol in the tin = 20 litres

Quantity of petrol lost, due to leakage = 3 litres

Now, quantity of petrol left in the tin =  $(20 - 3) = 17$  litres

Therefore, percentage of petrol left in the tin =  $17 / 20 \times 100$   
 $= 17 \times 5$

We get,  
 $= 85\%$

Thus, 85% of petrol is left in the tin

**8. An alloy of copper and zinc contains 45% copper and the rest zinc. Find the weight of zinc in 20 kg of the alloy.**

**Solution:**

Total weight of the alloy = 20 kg

Percentage of copper = 45%

So, percentage of zinc =  $(100 - 45) \%$   
 $= 55\%$

As total quantity is always 100%

Thus, weight of zinc =  $55 / 100 \times 20 = 110 / 10$   
 $= 11$  kg

Therefore, the weight of zinc in the alloy is 11 kg

**9. A boy got 60 out of 80 in Hindi, 75 out of 100 in English and 65 out of 70 in Arithmetic. In which subject his percentage of marks the best? Also, find his overall percentage**

**Solution:**

Marks obtained by a boy in Hindi out of 80 = 60 marks

So, his percentage in Hindi =  $60 / 80 \times 100 = 600 / 8$   
 $= 75\%$

Marks obtained by a boy in English out of 100 = 75

So, his percentage in English =  $75 / 100 \times 100 = 75\%$

Marks scored by a boy in Arithmetic out of 70 = 65

So, his percentage in Arithmetic =  $65 / 70 \times 100 = 650 / 7$   
 $= 92\frac{6}{7} \%$

Clearly, it shows that he gets best marks in Arithmetic

Now,

Total marks of all the three subjects =  $80 + 100 + 70$   
 $= 250$  marks

Total marks obtained by a boy in all the three subjects =  $60 + 75 + 65$   
 $= 200$  marks

His overall percentage =  $200 / 250 \times 100 = 2000 / 25$   
 $= 80\%$

Hence, the overall percentage of a boy is 80%

**10. In a camp, there were 500 soldiers. 60 more soldiers joined them. What percent of the earlier (original) number have joined the camp**

**Solution:**

Total number of soldiers in the camp = 500 soldiers

Number of soldiers joined the camp = 60 soldiers

So, percentage of soldiers joining the camp as per the earlier strength

$$= 60 / 500 \times 100$$

$$= 60 / 5$$

We get,

$$= 12\%$$

Therefore, 12% of soldiers joined the camp as per the earlier strength

**11. In a plot of ground of area 6000 sq. m, only 4500 sq. m is allowed for construction. What percent is to be left without construction?**

**Solution:**

Total area of the plot = 6000 sq. m

Area of plot allowed for construction = 4500 sq. m

So, area of plot left = (6000 – 4500) sq. m

$$= 1500$$

Thus, area of plot left in percentage =  $1500 / 6000 \times 100$

$$= 150 / 6$$

We get,

$$= 25\%$$

Therefore, 25% of plot is left without construction

**12. Mr. Sharma has a monthly salary of Rs 8000. If he spends Rs 6400 every month, find:**

**(i) his monthly expenditure as percent**

**(ii) his monthly savings as percent**

**Solution:**

(i) his monthly expenditure as percent

Total salary of Mr. Sharma in a month = Rs 8000

Money spent by him in every month = Rs 6400

So, his expenditure percentage =  $6400 / 8000 \times 100 = 640 / 8$

$$= 80\%$$

Therefore, Mr. Sharma spends 80% of his salary

(ii) his monthly savings as percent

Total salary of Mr. Sharma in a month = Rs 8000

Money spent by him in every month = Rs 6400

So, His monthly saving = Rs (8000 – 6400)  
= Rs 1600

His savings in percentage =  $1600 / 8000 \times 100$   
=  $160 / 8$   
= 20%

Therefore, Mr. Sharma saves 20% of his salary

**13. The monthly salary of Rohit is Rs 24000. If his salary increases by 12%, find his new monthly salary**

**Solution:**

Monthly salary of Rohit = Rs 24000

Percent increased in his salary = 12%

Thus, increase in his salary =  $12 / 100 \times 24000$   
=  $12 \times 240$   
= Rs 2880

Hence, his new salary is =  $24000 + 2880$   
= Rs 26880

Therefore, the new salary of Rohit is Rs 26880

**14. In a sale, the price of an article is reduced by 30%. If the original price of the article is Rs 1800, find:**

**(i) the reduction in the price of the article**

**(ii) reduced price of the article**

**Solution:**

(i) the reduction in the price of the article

Original price of an article = Rs 1800

The price of an article reduced by = 30%

Hence, reduction in the price =  $30 / 100 \times 1800$   
=  $30 \times 18$   
= 540

Therefore, the price of an article reduced by Rs 540

(ii) reduced price of the article

Original price of an article = Rs 1800

Reduction in price = Rs 540

Hence, the final price = Rs (1800 – 540)  
= Rs 1260

Therefore, the final price of the article is Rs 1260

**15. Evaluate:**

**(i) 30% of 200 + 20% of 450 – 25% of 600**

**(ii) 10% of Rs 450 – 12% of Rs 500 + 8% of Rs 500**

**Solution:**

**(i) 30% of 200 + 20% of 450 – 25% of 600**

$$= (30 / 100 \times 200) + (20 / 100 \times 450) - (25 / 100 \times 600)$$

$$= (30 \times 2) + (2 \times 45) - (25 \times 6)$$

We get,

$$= 60 + 90 - 150$$

$$= 150 - 150$$

$$= 0$$

**(ii) 10% of Rs 450 – 12% of Rs 500 + 8% of Rs 500**

$$= (10 / 100 \times 450) - (12 / 100 \times 500) + (8 / 100 \times 500)$$

$$= (1 \times 45) - (12 \times 5) + (8 \times 5)$$

We get,

$$= 45 - 60 + 40$$

$$= 85 - 60$$

$$= \text{Rs } 25$$

**EXERCISE 16(C)**

**1. The price of rice rises from Rs 30 per kg to Rs 36 per kg. Find the percentage rise in the price of rice**

**Solution:**

Initial price of rice = Rs 30

Price increased in rice = Rs 6

So, the percent increase in price

$$= \frac{6}{30} \times 100$$

$$= \frac{(6 \times 10)}{3}$$

We get,

$$= 20\%$$

Therefore, the price of rice increased by 20%

**2. The population of a small locality was 4000 in 1979 and 4500 in 1981, By what percent had the population increase?**

**Solution:**

Population of a small locality in 1979 = 4000

Population of a small locality in 1981 = 4500

So, increase in population = 4500 – 4000

$$= 500$$

Thus, percent increase in population

$$= \frac{500}{4000} \times 100$$

$$= \frac{50}{4}$$

We get,

$$= 12.5\%$$

Therefore, the population of the locality increased by 12.5% in two years

**3. The price of a scooter was Rs 8000 in 1975. It came down to Rs 6000 in 1980. By what percent had the price of the scooter come down?**

**Solution:**

Price of a scooter in 1975 = Rs 8000

Price of a scooter in 1980 = Rs 6000

So, reduction in the price = Rs 8000 – Rs 6000

$$= \text{Rs } 2000$$

Hence, percent decrease in price

$$= \frac{2000}{8000} \times 100$$

$$= \frac{200}{8}$$

We get,

$$= 25\%$$

Therefore, the price of a scooter reduced by 25%

**4. Find the resulting quantity when:**

(i) Rs 400 is decreased by 8%

(ii) 25 km is increased by 5%

(iii) a speed of 600 km/h is increased by  $12\frac{1}{2}\%$

(iv) there is 2.5% increase in a salary of Rs 62, 500

**Solution:**

(i) Rs 400 is decreased by 8%

Rs 400 decreased by 8% is shown below

$$8 / 100 \times 400$$

$$= 8 \times 4$$

$$= \text{Rs } 32$$

Hence, decreased amount = Rs (400 – 32)

$$= \text{Rs } 368$$

(ii) 25 km is increased by 5%

5% increased to 25 km is shown below

$$5\% \text{ of } 25 \text{ km} = 5 / 100 \times 25$$

$$= 1.25 \text{ km}$$

Increased distance = 25 km + 1.25 km

$$= 26.25 \text{ km}$$

Therefore, increase in distance is 26.25 km

(iii) a speed of 600 km/h is increased by  $12\frac{1}{2}\%$

$12\frac{1}{2}\%$  Increased to 600 km/h is as shown below

$$12\frac{1}{2}\% = 25 / 2 \text{ of } 600 \text{ km/h}$$

$$= 25 / 200 \times 600$$

$$= 25 \times 3$$

We get,

$$= 75 \text{ km/h}$$

Hence, the increase in speed is calculated as below

$$= 600 \text{ km/h} + 75 \text{ km/h}$$

$$= 675 \text{ km/h}$$

Therefore, the increased speed is 675 km/h

(iv) there is 2.5% increase in a salary of Rs 62, 500

2.5% increased to Rs 62,500 salary is calculated as below

2.5% of Rs 62500

$$= [25 / (10 \times 100)] \times 62500$$

We get,

$$= (25 \times 625) / 10$$

On further calculation, we get

$$= 15625 / 10$$

$$= \text{Rs } 1562.50$$

Hence, final salary

$$= \text{Rs } 62500 + \text{Rs } 1562.50$$

$$= \text{Rs } 64062.50$$

Therefore, the final salary is Rs 64062.50

**5. The population of a village decreased by 12%. If the original population was 25000, find the population after decrease?**

**Solution:**

The original population of the village = 25000

Percent decrease in population = 12%

12% of 25000

$$= 12/100 \times 25000$$

$$= 12 \times 250$$

We get,

$$= 3000$$

Final population = 25000 – 3000

$$= 22000$$

Therefore, the final population of the village is 22000

**6. Out of a salary of Rs 13,500, I keep 1 / 3 as savings. Of the remaining money, I spend 50% on food and 20% on house rent. How much do I spend on food and house rent?**

**Solution:**

My total salary = Rs 13500

One-third of the salary for saving =  $1 / 3 \times \text{Rs } 13500$

$$= \text{Rs } 4500$$

Remaining money = Rs 13500 – Rs 4500

$$= \text{Rs } 9000$$

Amount spend on food = 50%

$$= 50 / 100 \times 9000$$

$$= 50 \times 90$$

$$= 4500$$

Amount spend on house rent = 20%

$$= 20 / 100 \times 9000$$

$$= 20 \times 90$$

$$= \text{Rs } 1800$$

Hence, total amount spend on both food and house rent

$$= \text{Rs } 4500 + \text{Rs } 1800$$

$$= \text{Rs } 6300$$

Therefore, total amount spend on food and house rent is Rs 6300

**7. A tank can hold 50 litres of water. At present, it is only 30% full. How many litres of water shall I put into the tank so that it becomes 50% full?**

**Solution:**

Total quantity of water a tank can hold = 50 litres

Water quantity at present = 30%

$$= 30 / 100 \times 50$$

$$= 3 \times 5$$

$$= 15 \text{ litres}$$

Hence, 30% of the total capacity = 15 litres

50% of the total capacity =  $50 / 100 \times 50$

$$= 5 \times 5$$

$$= 25 \text{ litres}$$

Hence, water required filling the tank to 50% =  $(25 - 15)$  litre

$$= 10 \text{ litres}$$

Therefore, 10 litres of water is required to fill the tank to 50% full

**8. In an election, there are a total of 80000 voters and two candidates, A and B. 80% of the voters go to the polls out of which 60% vote for A. How many votes does B get.**

**Solution:**

Total number of voters = 80000

Total number of votes polled = 80%

$$= 80 / 100 \times 80000$$

$$= 80 \times 800$$

$$= 64000$$

So, total percent of votes received by B if A gets 60% of polled votes

$$= 100\% - 60\%$$

$$= 40\%$$

Hence, total number of votes received by B =  $40 / 100 \times 64000$

$$= 40 \times 640$$

We get,

$$= 25600$$

Therefore, number of votes received by B, out of total votes polled is 25600 votes

**9. 70% of our body weight is made up of water. Find the weight of water in the body of a person whose body weight is 56 kg**

**Solution:**

Total percent of water content in the human body = 70%

Weight of a person = 56 kg

So, quantity of water in a person whose weight is 56 kg =  $70 / 100 \times 56$

$$= 392 / 10$$

$$= 39.2 \text{ kg}$$

Therefore, 39.2 kg is the weight of water in the body of a person whose body weight is 56 kg

**10. Only one-fifth of water is available in liquid form. This limited amount of water is replenished and used by man recurrently. Express this information as percent, showing:**

**(i) water available in liquid form**

**(ii) water available in frozen form**

**Solution:**

(i) Water available in liquid form

Let total quantity of water = 1

Availability of water in liquid form =  $1 / 5$

Hence, percent of water available in liquid form =  $1 / 5 \times 100$

$$= 20\%$$

Therefore, water available in liquid form is 20%

(ii) Water available in frozen form

Let total quantity of water = 1

Availability of water in liquid form =  $1 / 5$

Hence, availability of water in frozen form =  $1 - 1 / 5$

$$= (5 - 1) / 5$$

$$= 4 / 5$$

Percentage of water in frozen form =  $4 / 5 \times 100$

$$= 4 \times 20$$

$$= 80\%$$

Therefore, 80% of water is available in frozen form

**11. By weight, 90% of tomato and 78% of potato is water. Find:**

**(i) the weight of water in 25 kg of tomato.**

**(ii) the total quantity, by weight, of water in 90 kg of potato and 30 kg of tomato**

**(iii) the weight of potato which contains 39 kg of water**

**Solution:**

(i) the weight of water in 25 kg of tomato.

Weight of water in 25 kg tomatoes if tomatoes 90% weight is water

$$= 90 / 100 \times 25$$

$$= (9 \times 25) / 10$$

We get,

$$= 225 / 10$$

$$= 22.5 \text{ kg}$$

Therefore, 25 kg tomatoes have 22.5 kg of water in it

(ii) the total quantity, by weight, of water in 90 kg of potato and 30 kg of tomato

Total quantity of water in 90 kg of potatoes if 78% of potato is water

$$\text{Water weight} = 78 / 100 \times 90$$

$$= 70.2 \text{ kg}$$

Total quantity of water in 30 kg of tomatoes if 90% of tomato is water

$$\text{Water weight} = 90 / 100 \times 30$$

$$= 27 \text{ kg}$$

$$\text{Total weight of water} = (70.2 + 27) \text{ kg}$$

$$= 97.2 \text{ kg}$$

Therefore, the total weight of water is 97.2 kg

(iii) the weight of potato which contains 39 kg of water

Weight of potatoes having 39 kg of water is calculated as below

$$= (39 \times 100) / 78$$

$$= 100 / 2$$

We get,

$$= 50 \text{ kg}$$

Therefore, the weight of potatoes is 50 kg