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NCERT Solutions for 4th Class Maths Chapter 9-Halves And Quarters



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NCERT Solutions for 4th Class Maths Chapter 9-Halves And Quarters

Class 4: Maths Chapter 9 solutions. Complete Class 4 Maths Chapter 9 Notes.

NCERT Solutions for 4th Class Maths Chapter 9-Halves And Quarters

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Half-Half

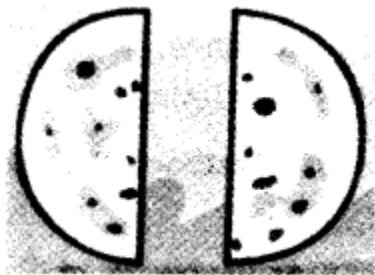
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1. If the cats ask you to divide the chapati equally, how will you divide it?

Ans. I will fold the chapati in two halves, as a circle was folded in previous chapter to locate the centre.

And then I will tear them apart from the creased line.

Half of Half

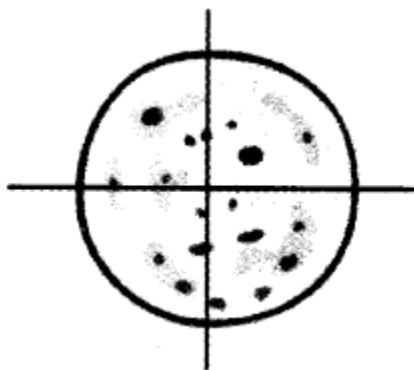


2. If two more cats come for food, how will you divide one chapati equally for four cats?

Ans. First of all I will fold the chapatti in two halves.

Then again I will fold it in further two halves. As we folded the circle in four equal parts to locate the centre in previous chapter.

Then I will tear off the chapati from the creased line.



Pages 95-96

Half of Many Pieces

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Rani got a chocolate. She divided it equally and gave half to her friend Reena.



1. Circle the portion that Reena got.

Ans.



2. How many pieces of chocolate are there?

Ans. There are six pieces of chocolate.

3. How many pieces were left with Rani?

Ans. There are three pieces of chocolate left with Rani.

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Many Shapes from a Half Sheet

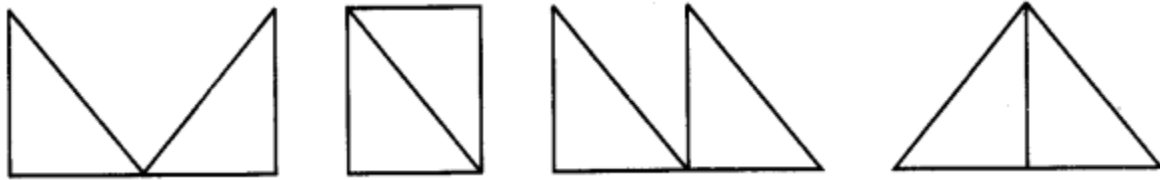
Take a piece of paper. Cut the sheet into two equal triangles so that each triangle is equal to half of the sheet.

Shade the two triangles with different colours.

1. Draw different shapes using these triangles. One such shape is shown here.

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Ans. Some shapes using these triangles are given here:



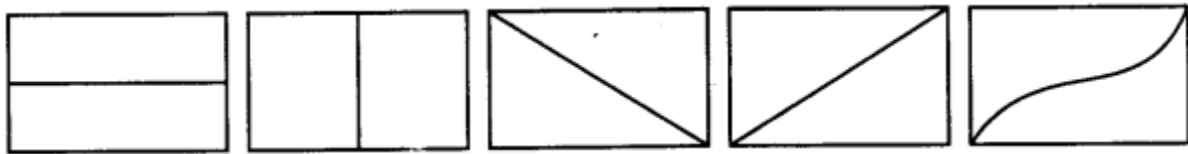
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Many Ways to Cut into Half

1. In how many different ways can you cut a rectangle into half? Draw 5 different ways. Can you check if they are equal?

Ans. Five different ways to cut a rectangle is as follows:

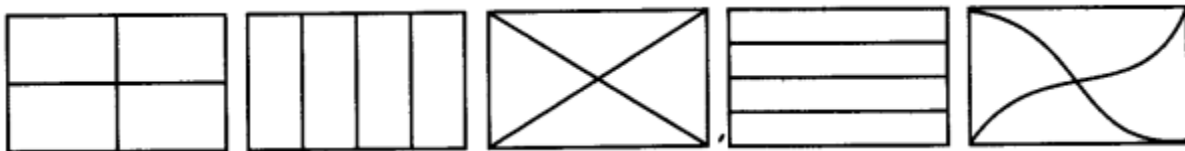
Each part of rectangle exactly coincides with the other part, so two parts are equal.



2. In how many different ways can you cut a rectangle into four equal parts? Draw five different ways. Can you check if they are equal?

Ans. Cutting of a rectangle in four equal parts is shown in the figures given here.

As each part exactly coincides with the each of the remaining three parts, so they are equal.



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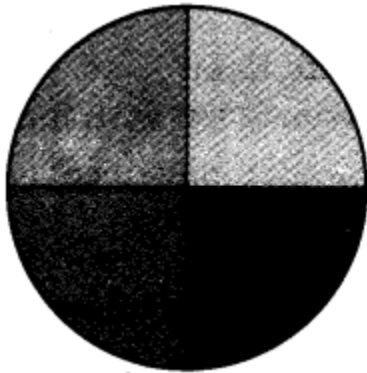
<https://www.indcareer.com/schools/ncert-solutions-for-4th-class-maths-chapter-9-halves-and-quarters/>

Cutting the Cake

Rajni's father brought a cake. She divided the cake into 4 equal parts-for herself, her brother Raju, her father and her mother.

1. Colour each share with different colours.

Ans.



2. How much does each get?

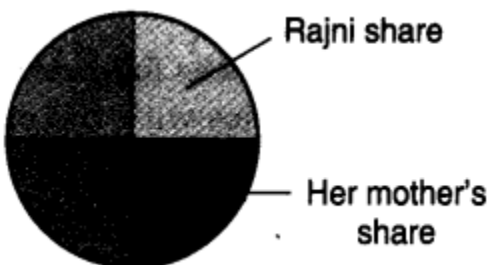
Ans. Each person gets $\frac{1}{4}$ of the cake.

3. Mother gave her share of cake to Rajni. Now colour the total part that Rajni will get.

Ans. By this way Rajni got = Her share + Her mother's share

$$= \frac{1}{4} + \frac{1}{4}$$

= $\frac{1}{2}$ part of the cake



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4. Out of 4 parts Rajni will get _____ Parts which is equal to half of the cake

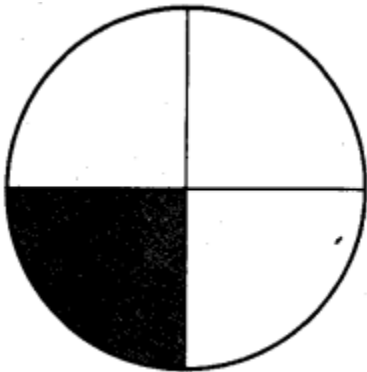
So, she can write it as $\frac{1}{4}$ or $\frac{1}{2}$

Ans. Out of 4 parts Rajni will get 2 parts.

So, she can write it as $\frac{2}{4}$ or $\frac{1}{2}$

5. Colour the share Raju got.

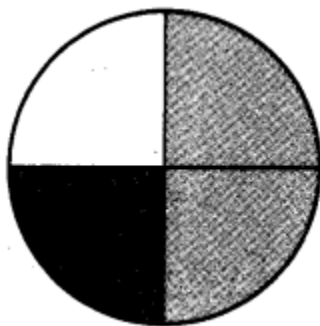
Ans.



6. How much of the cake do Rajni and Raju together get? Colour their total share.

Altogether they get 3 parts out of 4, so we can write it as $\frac{3}{4}$

Ans.



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Greedy Kundu

First pumpkin seller – 1/4 of this pumpkin is for Rs 10.

1. This full pumpkin will cost Rs_____ .

Ans. The cost of 1/4 pumpkin = Rs 10

Therefore, cost of one pumpkin = Rs 10 ÷ 1/4

= Rs 10 x 4/1

= Rs 40.

2. Kundu-how much of this pumpkin will I get for 110? Second pumpkin seller-Half

This full pumpkin will cost Rs_____

Ans. If cost of half pumpkin is Rs 10

Therefore, the cost of full pumpkin = Rs 10 + Rs 10

= Rs 20

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Using a Price List

<i>Item</i>	<i>Price in ₹(per kg)</i>
Tomato	8
Potato	12
Onion	10
Carrot	16
Pumpkin	4

1. How much does 1/2 kg of tomatoes cost?

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Ans.

The cost of 1 kg of tomato = Rs 8

Therefore, the cost of $\frac{1}{2}$ kg tomato = $\text{Rs } 8 \div 2$

= Rs4.

2. Which costs more— $\frac{1}{2}$ kg of onions or $\frac{1}{4}$ kg of carrots?

Ans. The cost of $\frac{1}{2}$ kg of onion = cost of $\frac{1}{2}$ kg of onion/2

= $\text{Rs } 10/2 = \text{Rs } 5$

Cost of $\frac{1}{4}$ kg of carrot = Cost of $\frac{1}{4}$ kg of carrot/4

= $\text{RS } 16/4$

= Rs 4

The price of $\frac{1}{2}$ kg of onions is more than the cost of $\frac{1}{4}$ kg of carrots.

3. What is the price of $\frac{3}{4}$ kg of potatoes?

Ans. The cost of 1 kg of potatoes = Rs 12

Therefore, the cost of $\frac{3}{4}$ kg of potatoes = $\text{Rs } 12 \times \frac{3}{4}$

= $\text{Rs } 36/4$

= RS 9.

4. Keerthi is going for shopping. She has only Rs 20 with her. Can she buy all the things in her shopping list?

Ans. The cost of $\frac{1}{2}$ kg of tomato = $\text{RS } 8 \times \frac{1}{2} = \text{Rs } 4$

The cost of $\frac{1}{4}$ kg of potato = $\text{Rs } 12 \times \frac{1}{4} = \text{Rs } 3$

Cost of $\frac{1}{2}$ kg of onion = $\text{Rs } 10 \times \frac{1}{2} = \text{Rs } 5$

Cost of $\frac{1}{4}$ kg of carrot = $\text{Rs } 16 \times \frac{1}{4} = \text{Rs } 4$

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Cost of 1 kg of pumpkin = Rs 4 Total

cost =Rs4+Rs3+Rs5+Rs4+Rs4=Rs 20.

So, she can purchase all things in the price list managing as written above.

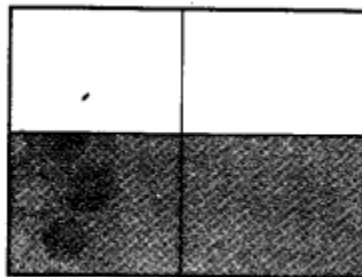
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Practice Time

(a) What part of the whole is coloured? write below each shape.

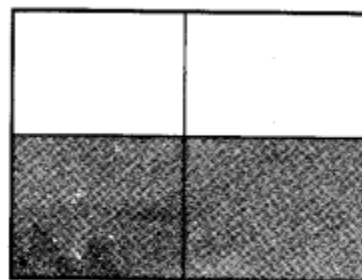




Ans.



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

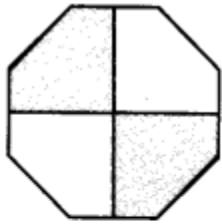


$$\text{Half} = \frac{1}{2}$$

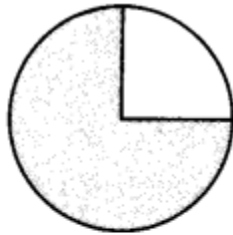
<https://www.indcareer.com/schools/ncert-solutions-for-4th-class-maths-chapter-9-halves-and-quarters/>

(b) Colour that part of the shape which is written below:

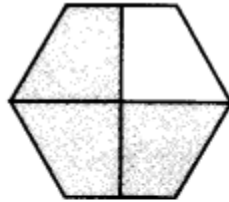
Ans.



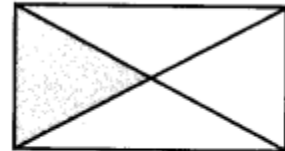
$1/2$



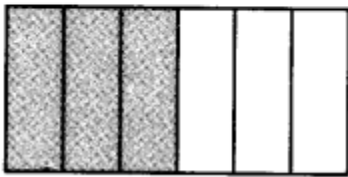
$3/4$



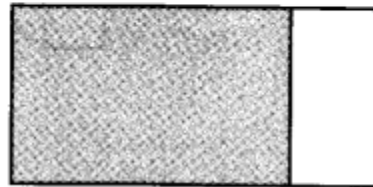
$3/4$



$1/4$



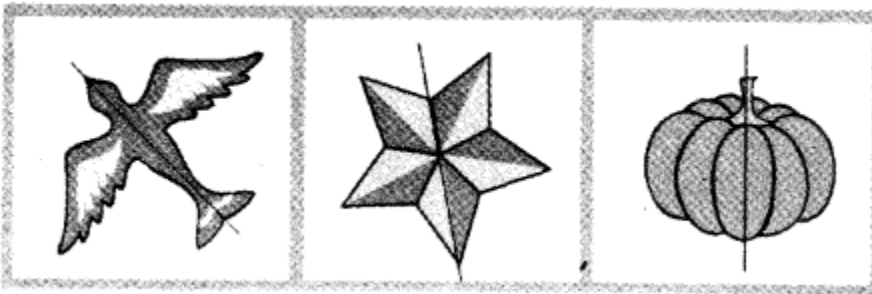
$1/2$



$3/4$

(c) Cut in half draw in a line which divided these shapes into half.

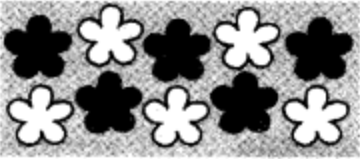
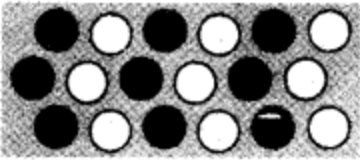
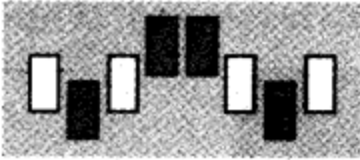
Ans.



(d) Colour half the number of shapes as shown here.

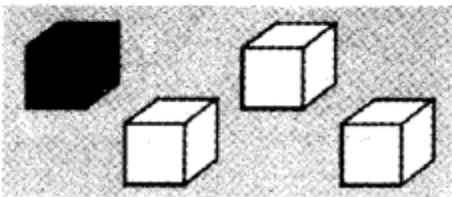
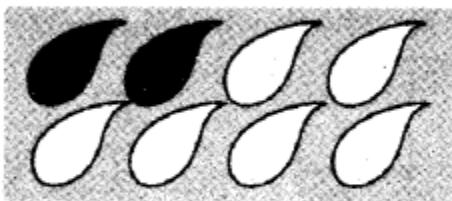
Ans. The coloured shape is given here

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(e) Colour $\frac{1}{4}$ of these shapes.

Ans. The coloured shapes are given as



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(f) Match the coloured part as shown.



Quarter

$$\frac{3}{4}$$



Three Quarter

$$\frac{4}{4}$$



Half

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

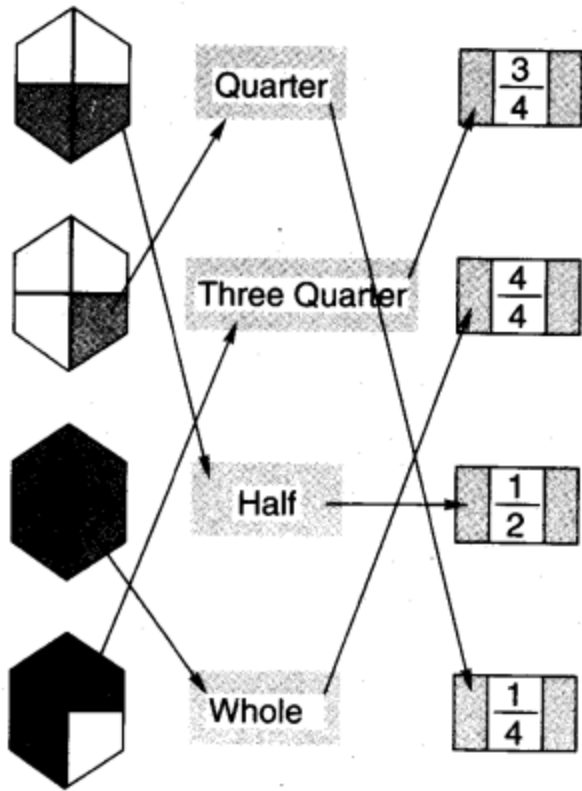


Whole

$$\frac{1}{4}$$

Ans.

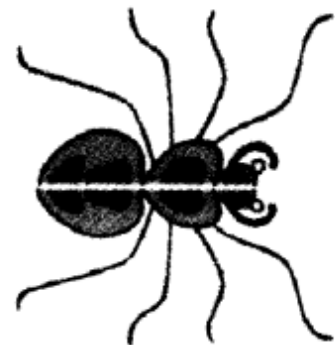
<https://www.indcareer.com/schools/ncert-solutions-for-4th-class-maths-chapter-9-halves-and-quarters/>



(g) Make the other half

1/2 of the picture is drawn here. Can you complete the picture by drawing the other half?

Ans. Completed pictures.



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(h) This is a quarter of a picture. Can you complete it? How many more quarters will you draw to complete it?

Ans. To complete this picture three more quarters will be needed to draw.



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Half and Quarter of a Metre

1. Using your string, draw a line of length $\frac{1}{2}$ metre on the floor. How many centimetres long is the line?

Ans. The line is 50 cm long.

2. So,

$\frac{1}{2}$ metre = _____ cm

$\frac{1}{4}$ metre = _____ cm

$\frac{3}{4}$ metre = _____ cm

Can you see that when we add $\frac{1}{2}$ and $\frac{1}{4}$ we get $\frac{3}{4}$?

Ans.

$\frac{1}{2}$ metre = 100 cm $\times \frac{1}{2}$ = 50 cm

$\frac{1}{4}$ metre = 100 cm $\times \frac{1}{4}$ = 25 cm

$\frac{3}{4}$ metre = 100 cm $\times \frac{3}{4}$ = 75 cm

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When $\frac{1}{2}$ and $\frac{1}{4}$ is added

We get $\frac{1}{2} + \frac{1}{4} = 2 + \frac{1}{4} = \frac{3}{4}$

We can see that we get $\frac{3}{4}$ by adding $\frac{1}{2}$ and $\frac{1}{4}$.

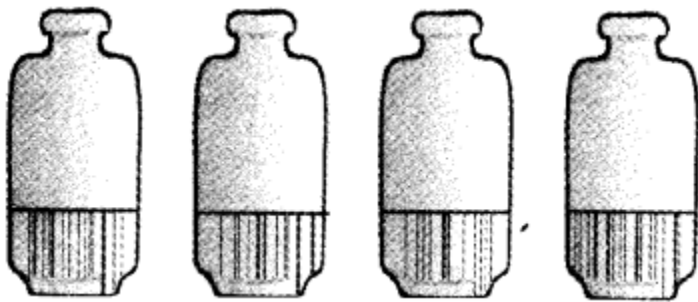
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Sharing Milk

1. This bottle is full of milk and it holds one litre. The milk is put into 4 other bottles so that each bottle has $\frac{1}{4}$ litre of milk.

Shade the bottles to show the level of milk in each.

Ans. In the figures given under, the level of the milk is marked.



2. How many millilitres of milk does each bottle have?

Ans. Each bottle have $1000 \text{ mL} \times \frac{1}{4} = 250 \text{ mL}$ of milk. .

3. Shan poured 1 litre of milk into two bottles so that the first bottle holds $\frac{3}{4}$ litre and the other holds $\frac{1}{4}$ litre.

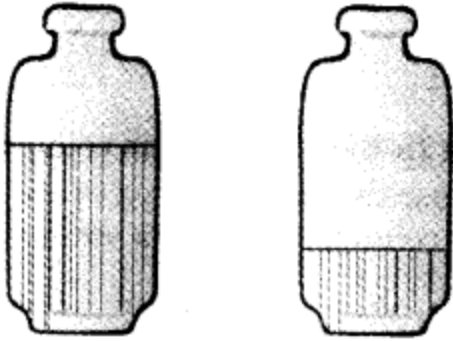
(a) Shade the level of milk in each bottle.

(b) How many millilitres of milk does each bottle hold?

Ans.

(a) The level of milk in each bottle is given here

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(b) The first bottle which holds $\frac{3}{4}$ litre of milk has 750 mL of milk. The second bottle which holds $\frac{1}{4}$ litre has 250 mL of milk.

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Balance the Weight

1. Choose from the weights above to make the two pans equal. In how many ways can you do it?

Ans. This can be done in many ways. Some ways are given here.

(i) $1 \text{ kg} + 500 \text{ gm} + 500 \text{ gm}$

(ii) $1 \text{ kg} + 500 \text{ gm} + 250 \text{ gm} + 250 \text{ gm}$

(iii) $1 \text{ kg} + 500 \text{ gm} + 200 \text{ gm} + 200 \text{ gm} + 100 \text{ gm}$

(iv) $1 \text{ kg} + 250 \text{ gm} + 250 \text{ gm} + 250 \text{ gm} + 200 \text{ gm} + 50 \text{ gm}$

(u) $1 \text{ kg} + 200 \text{ gm} + 200 \text{ gm} + 100 \text{ gm} + 500 \text{ gm}$

(a) Draw the weights in the empty pan.

Ans. To balance the pan I put $1 \text{ kg} + 500 \text{ g} + 500 \text{ g}$ weights in empty pan.

(b) In how many different ways can you balance this weight of $\frac{3}{4}$ kg?

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1. _____ 2. _____ 3. _____

Ans. $3/4 \text{ kg} = 1000 \text{ gm} \times 3/4 = 750 \text{ gm}$

1. $250 \text{ gm} + 250 \text{ gm} + 250 \text{ gm}$

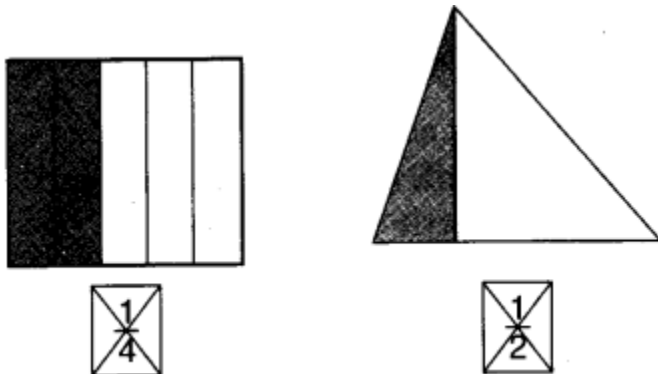
2. $250 \text{ gm} + 250 \text{ gm} + 200 \text{ gm} + 50 \text{ gm}$

3. $500 \text{ gm} + 250 \text{ gm}$.

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Why is it Wrong?

1. Kannan shaded some parts as shown. But his friend Mini says that it is wrong. Explain why it is wrong.



Ans. The 2 parts out of 5 parts in the rectangle is coloured, so it is $2/5$ part coloured. In the triangle it is not clear that how many parts of it is coloured. But it is clear that less than $1/2$ part is coloured. So $1/2$ is wrong.

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Practice Time

1. There are 60 mangoes. $1/2$ of them are ripe. How many mangoes are ripe?

Ans. Total number of mangoes = 60 Half of them are ripe

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Therefore, number of ripe mangoes = $\frac{1}{2} \times 60$
= 30 mangoes.

Hence, 30 mangoes are ripe.

2. There are 32 children. $\frac{1}{2}$ of them are girls. How many children are boys?

Ans. Total number of children = 32

Half of them are girls, obviously half are boys.

Therefore, half of 32 = $\frac{1}{2} \times 32 = 16$ Hence, 16 children are boys.

3. There are 20 stars. A quarter of them are red. How many stars are red? How many stars are not red?

Ans. Total number of stars = 20

$\frac{1}{4}$ of them are red

Therefore, number of red stars = $\frac{1}{4} \times 20$

= 5 stars

Number of red stars = 5



Chapterwise NCERT Solutions for Class 4 Maths :

- Chapter 1: Building with Bricks
- Chapter 2: Long and Short
- Chapter 3: A Trip to Bhopal
- Chapter 4: Tick-Tick-Tick
- Chapter 5: The Way The World Looks
- Chapter 6: The Junk Seller
- Chapter 7: Jugs and Mugs
- Chapter 8: Carts and Wheels
- Chapter 9: Halves and Quarters
- Chapter 10: Play with Patterns
- Chapter 11: Tables and Shares
- Chapter 12: How Heavy? How Light?
- Chapter 13: Fields and Fences
- Chapter 14: Smart Charts

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