NCERT Solutions for Class 4 Maths Chapter 8: NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels are created to support students in mastering the concepts related to wheels and carts. This chapter helps students understand the importance and functionality of wheels in daily life and introduces them to basic concepts of geometry and measurement through engaging activities.

In this article we are going to discuss the NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels in detail.

NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels Overview

NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels are prepared by the subject experts of Physics Wallah to provide a detailed understanding of the concepts related to wheels and carts.

These solutions provide clear and step-by-step explanations to help students grasp the fundamental principles of geometry and measurement involved in this chapter. By solving these solutions students can enhance their problem-solving skills.

NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels PDF

The PDF for NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels is a valuable resource for students seeking to master the concepts of this chapter. This detailed guide are available in PDF format provides detailed solutions to the exercises in the chapter which focus on the geometric properties and practical applications of carts and wheels.

With step-by-step explanations and illustrative examples the PDF helps students understand the principles of measurement, shape, and movement associated with wheels.

NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels PDF

NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels

Here we have provided NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels-

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Question: 1

You must have seen many such round things around you. List some more in your notebook.

Answer: The list of round things around us is as follows:

1. Moon
2. Sun
3. Ball
4. Tyre
5. Bangles
6. Tawa
7. Bowl
8. Wheelchair
9. Coins
10. Plate

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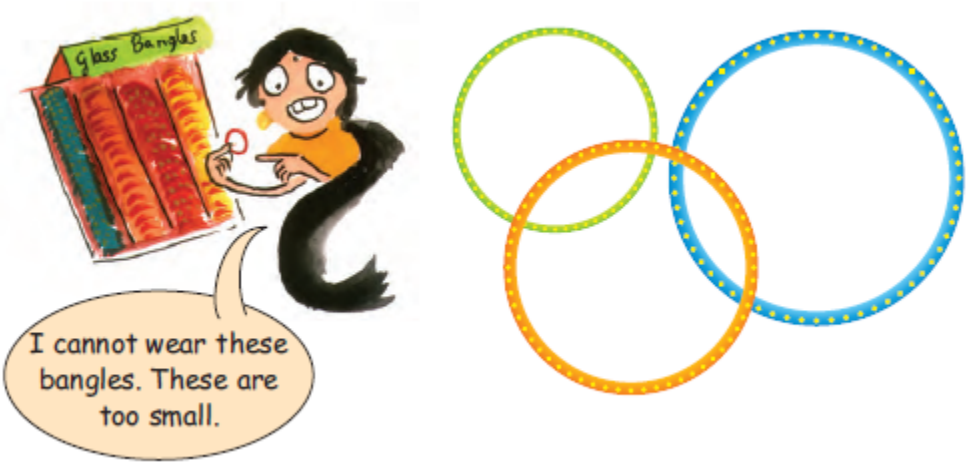
Round Bangle

Question: 2

Have you ever gone to a bangle shop?

Answer: Yes, I have gone to the bangle shop along with my mother.



Question: 3

Guess which of these bangles is of your size?

Answer: The smallest bangle is of my size

Question: 4

Take a wire and make a bangle for yourself. Can your teacher wear this bangle?

Answer: I made a bangle by wrapping a wire around a pipe. Unfortunately, my teacher cannot wear this bangle because the wire bangle is likely too small or not shaped properly for comfortable wear. The size and shape need to be adjusted to fit a wrist comfortably.

Question: 5

A bangle can be used to trace a circle. What are the other things around you that you can use to trace a circle?

Answer: Other items around you that can be used to trace a circle include coins, plates, bottle caps, cups, lids, and even some jars. These objects have circular edges that can serve as templates for drawing perfect circles.

Question: 6

Trace a circle with the help of some of these in your notebook or on the ground.

(a) Which thing makes the smallest circle?

(b) Which thing makes the biggest circle?

Answer: (a) The smallest circle can be made using a pen cap, as it has the smallest diameter among the objects mentioned.

(b) The biggest circle can be traced using a plate used for food, as it typically has a larger diameter compared to other items like coins or bottle caps.

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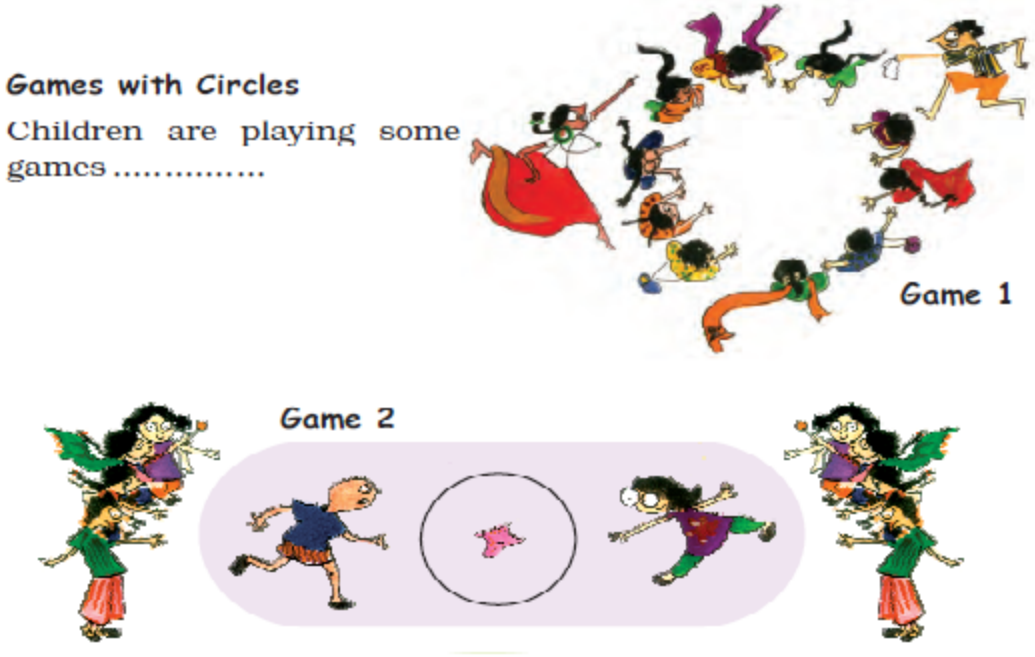

Question: 7

Do you play these games?

Answer: Yes, I play these games.

Question: 8

Which song do you sing when you play these?

Answer: We sing rain-rain go away, come again another day while playing these games.

Question: 9

What if a rectangle was made? Discuss.

Answer: If a rectangle were used instead of a circle, the dynamics of certain games would be affected. For instance, in sports like cricket, the use of a rectangular field would result in an unequal distance from the players to the boundary lines, potentially impacting gameplay.

The circle's uniform distance from the center ensures consistency in play, which is crucial for fair competition. In contrast, rectangles are more commonly used in other contexts and games where uniformity in distance from a central point is less critical.

Question: 10

Think of some other games you play by making circles.

Answer: Games that involve making circles include:

- **Musical Chairs:** Players walk around a circle of chairs, and when the music stops, they must find a chair to sit in. One chair is removed each round, and the game continues until only one player remains.
- **Passing the Parcel:** Players sit in a circle and pass a wrapped parcel around while music plays. When the music stops, the person holding the parcel removes one layer of wrapping. The game continues until the final layer is unwrapped and a prize is revealed.

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Making a Circle

Naina, Chippu and Ariba want to play a game. They want to make a big circle on the ground. But they cannot make it by tracing. So, Ariba tries to draw a circle with a stick.

Chippu and Naina — It does not look like a circle at all.

Ariba — OK! Why don't both of you try?

Chippu and Naina both make circles on the ground.

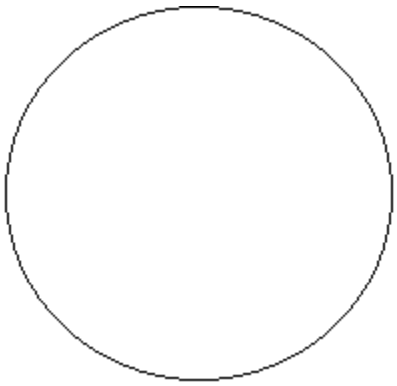
Question: 11

(a) Is any of these a good drawing of a circle?

Answer: No, none of these is good for drawing a circle.

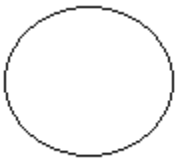
(b) Can you draw a circle on the floor with chalk? Try.

Answer: Yes, by using chalk I can draw a circle on the floor.



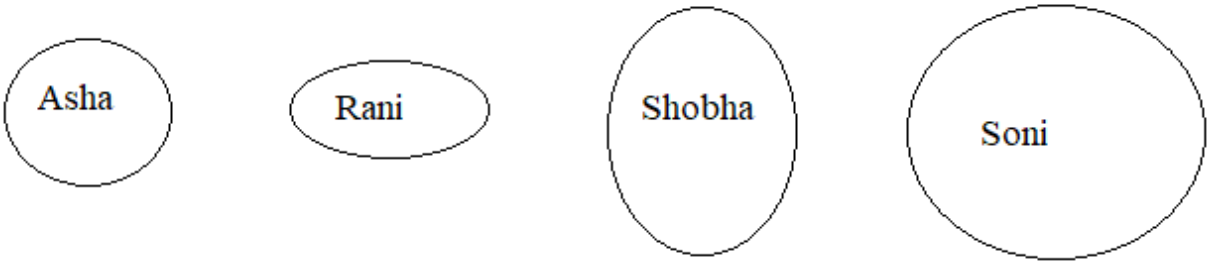
(c) Also, draw a circle in your notebook using a pencil.

Answer: The circle drawn with a pencil is shown below.



(d) Look at the circles drawn by your friends. Who has drawn the best circle?

Answer: Circles drawn by my friends are given below.



The circle drawn by Soni is the best circle.

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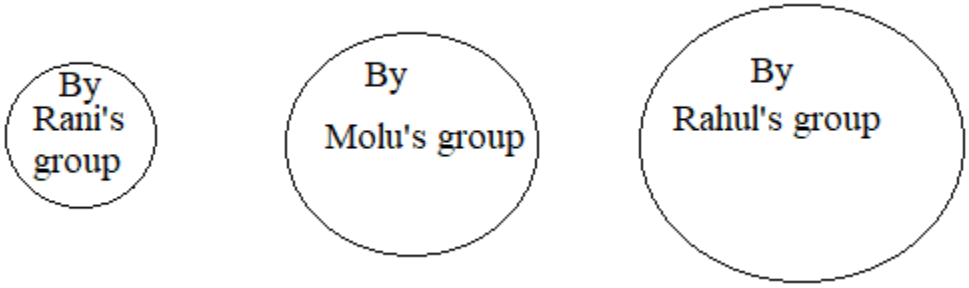
Making a Circle with a Rope

Question: 12

(a) Do the activity in small groups. Each group should take a rope of a different length. See the circles made by different groups.

Answer:



Circle drawn by Rani's group is the smallest circle.

(b) How long was their rope?

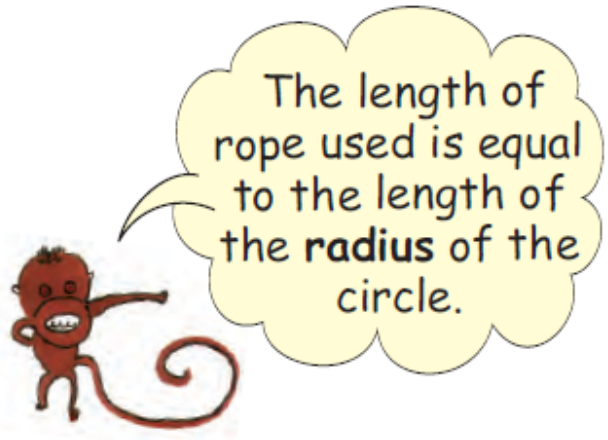
Answer:

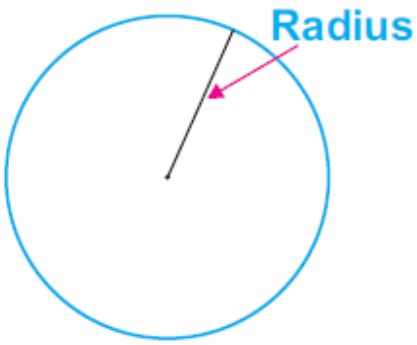
Group	Length of their rope
Rani's Group	2 metre
Molu's Group	5 metre
Rahul's Group	8 metre

(c) Does a longer rope make a bigger circle? Why is it so?

Answer: Yes, a longer rope does make a bigger circle. This is because the length of the rope directly affects the circumference of the circle. A longer rope means that the circumference of the circle it creates will be greater.

Since the circumference of a circle is related to its radius (with a larger radius leading to a larger circumference), using a longer rope results in a circle with a larger radius and, consequently, a bigger circle. Therefore, the circle made with the longest rope will be the biggest circle.





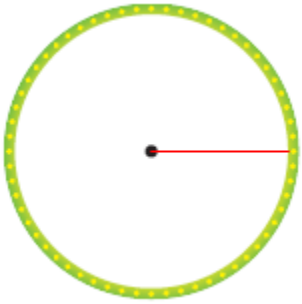
(d) What was the radius of the smallest circle?

Answer: The smallest circle radius was 2 metres.

Question: 13

Draw the radius of this bangle using a ruler. Measure the length of the radius.

Answer:



The radius of this bangle is 2 cm.

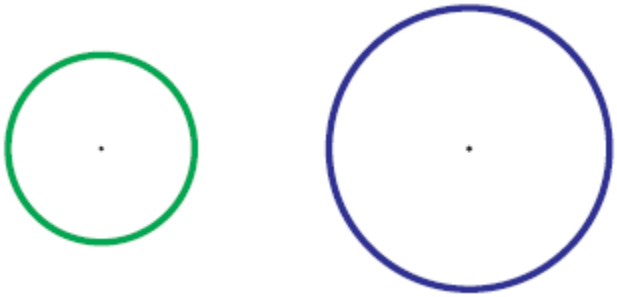
Question: 14

Now see what your friends have drawn. Discuss the length of the radius they measured. Is it the same as yours?

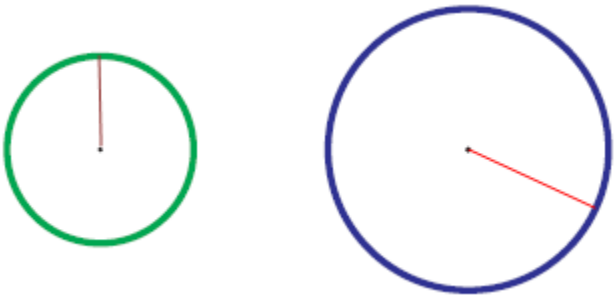
Answer: The radius drawn by all the friends is the same.

Question: 15

Draw the radius of these circles. Guess which circle has the longer radius.



Answer:



Here, the radius of the bigger circle is longer.

Question: 16

Measure the radius of both circles using a ruler. Write the length of their radius.

(a) Radius of the green circle

(b) Radius of the blue circle

Answer:

(a) Radius of the green circle is 1 cm.

(b) Radius of the blue circle is 1.8 cm.

Find out

Question: 17

Measure the radius of the wheels of a bicycle or a bullock cart. You can use a thread or a measuring tape.

Answer: The radius of the wheels of a bicycle is 14 inches. The radius of the wheel of a bullock cart is 22 inches.

Question: 18

Are all the wheels of a bicycle or a bullock cart of the same radius?

Answer: Yes, they are of the same radius.

Question: 19

Have you seen a tractor or a road roller?

Answer: Yes, I have seen both.

Question: 20

Which is the biggest wheel you have ever seen?

Answer: The biggest wheel I have ever seen is the wheel of a merry-go-round.

Question: 21

Are all wheels of a tractor or road roller of the same radius?

Answer: No, the wheels of a tractor or road roller do not have the same radius. Their back wheels are bigger.

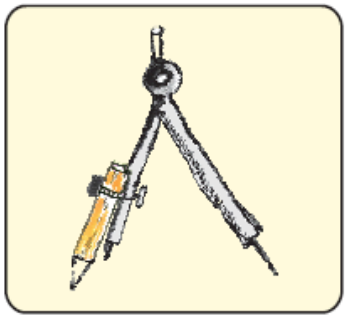
Question: 22

Lali and Kali are tied to a pole with ropes. Kali has a longer rope. Who can look for more grass to eat?

Answer: Kali can look for more grass to eat as she has a longer rope.

Question: 23

Why did Naina get such a drawing? Discuss. Can a circle have more than 1 centimetre.



Using a Compass

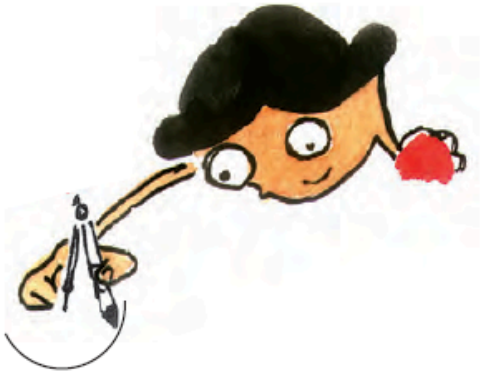
- Have you seen a compass before? How will you use this to make a circle?
  - — Open your compass.
  - — Press the tip of the compass on the paper. Hold the compass from the top.
  - — Without moving the tip, try to move the pencil around.
  - — Do you get a circle?

Answer: Yes, I got a circle.

Question: 24

Is this circle better than the one you made earlier without a compass? Draw the radius of this circle and measure it.

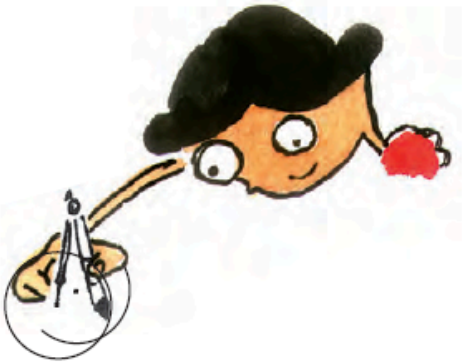
Answer: Yes, this circle is indeed better than the one made earlier without a compass. Using a compass ensures that the circle is more precise and symmetrical. The radius of this circle is 3 centimeters, as measured accurately with the compass.



Is It a Circle?

Naina was making a circle.

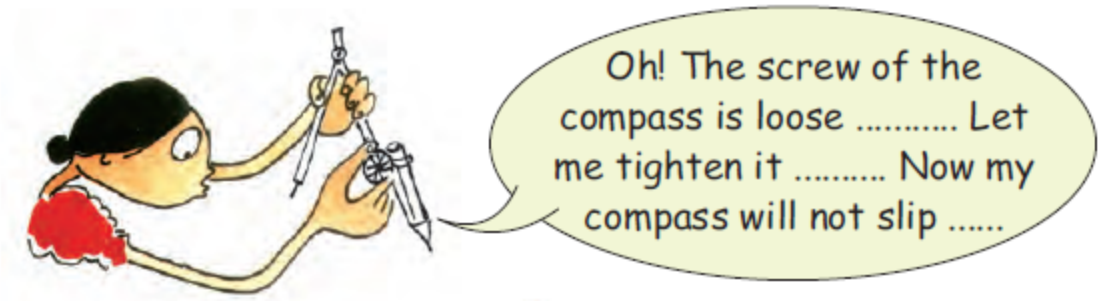
Ravi asked her for an eraser. She kept her compass and gave him the eraser. Then she started again to complete her circle. But she got this.



Question: 25

Why did Naina get such a drawing? Discuss. Can a circle have more than one centre?

Answer: Naina's drawing turned out as it did because she likely moved the center of the circle while drawing, which resulted in an irregular shape. A circle cannot have more than one center; by definition, a circle is a set of all points that are equidistant from a single point, which is the center. Thus, any variation in the center will alter the circle's symmetry and shape.



Question: 26

Did any one of you ever get a shape like Naina's?

Answer: Yes, I got the shape like Naina when I drew a circle using more than one centre.

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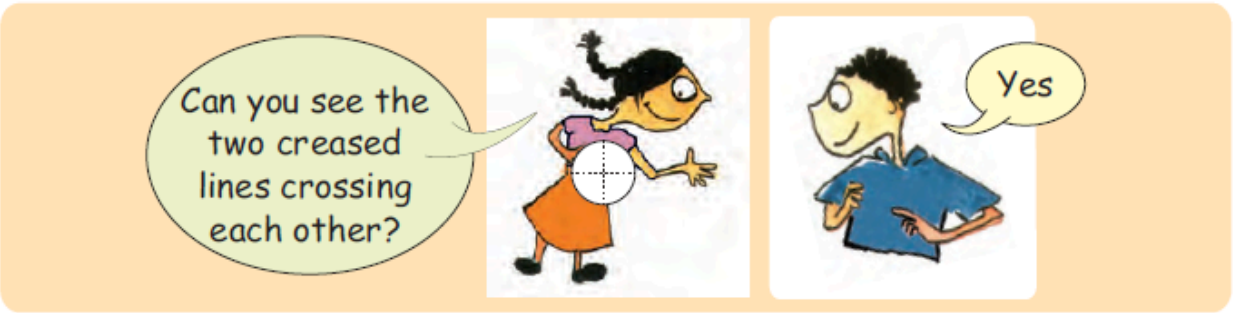
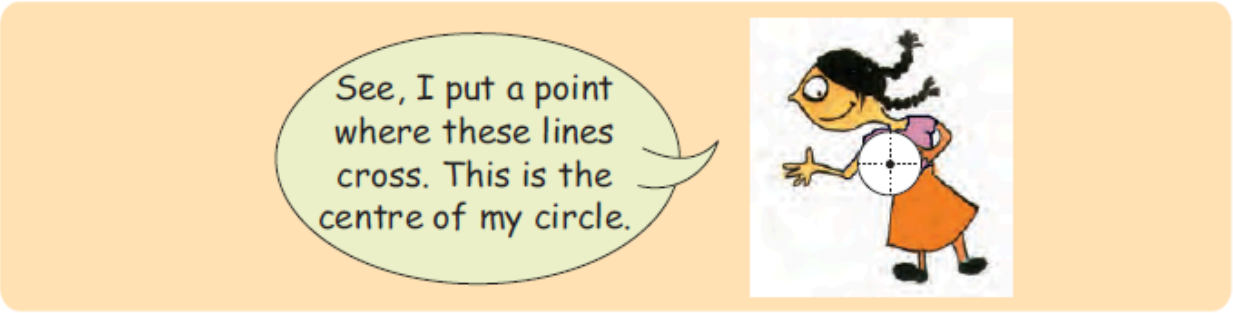


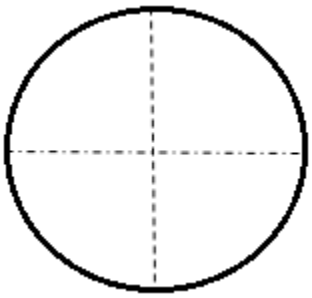


Question: 27

Now you trace a circle on paper using a bangle. Cut it. Then find its centre like Sameena did.

Answer: To find the center of the circle you traced and cut out, follow these steps:

1. **Trace and Cut:** Use a bangle to trace a circle on a piece of paper, then carefully cut out the circle along its outline.
2. **Fold:** Fold the circle in half so that the edges align perfectly. Crease the fold well.
3. **Fold Again:** Fold the circle in half once more, ensuring the edges are aligned, and crease the fold thoroughly.
4. **Find the Center:** Unfold the circle. The point where the two creases intersect is the center of the circle. This method helps in accurately locating the center by using the symmetry of the folds.



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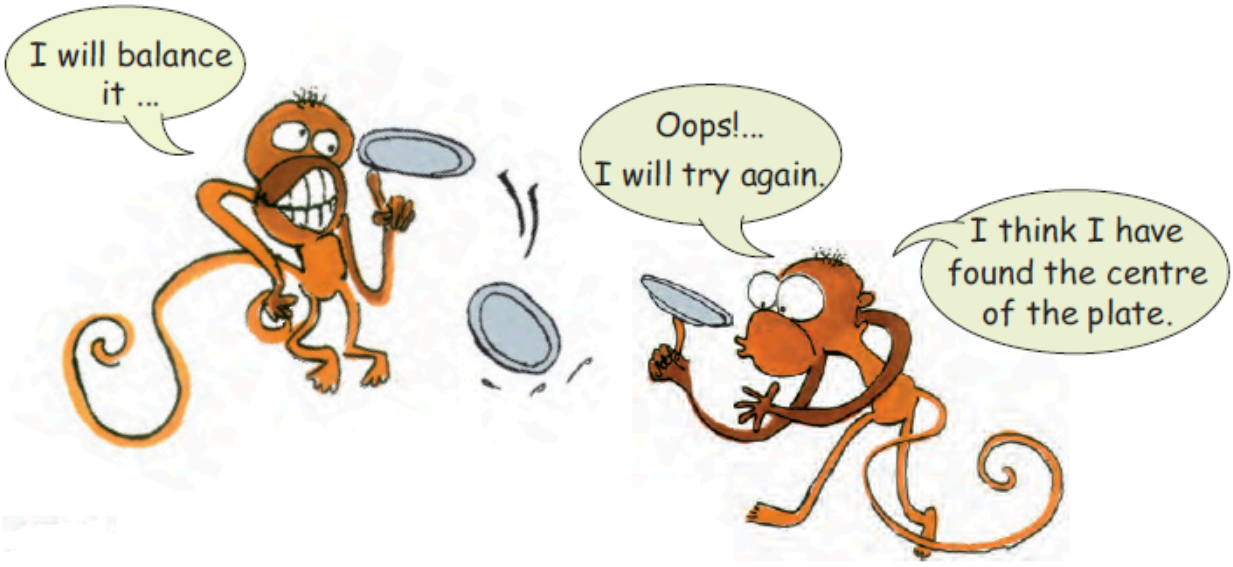
Balancing Act



Question: 28

Can you balance a plate on your finger?

Answer: No, I cannot balance a plate on my finger. Balancing a plate on a finger is challenging and requires a lot of practice and precision.

Question: 29

You also try to balance a plate or a round lid on your finger. Where does it balance?

Answer: The plate or round lid balances at its center of gravity. This central point is where the forces are evenly distributed, allowing the plate to remain balanced on your finger.

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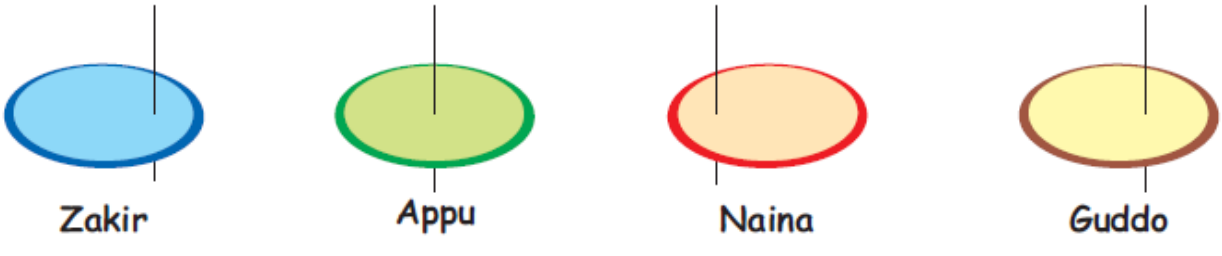
Spin the Top

Now everybody was excited to spin their tops which looked like this.



Question: 30

(a) Whose top will not spin at all?

(b) Whose top will spin a little?

(c) Whose top will spin the best?

(d) In whose top is the stick nearest to the centre?

Answer:

(a) Zakir's and Naina's tops will not spin at all.

(b) The top made by Guddo will spin a little.

(c) The top made by Appu will spin the best.

(d) The top in which the stick is nearest to the centre is Appu's top.

Question: 31

To make the top spin well, where will you make the hole?

Answer: We will make the hole at its centre to spin the top well.

Benefits of NCERT Solutions for Class 4 Maths Chapter 8 Carts and Wheels

- **Concept Clarity:** The solutions provide clear and detailed explanations of geometric concepts related to shapes like circles and their properties. This helps students grasp fundamental ideas about radius, diameter, and circumference in a straightforward manner.
- **Enhanced Problem-Solving Skills:** By working through the solutions students learn various methods for solving problems involving circles and measurements, improving their overall problem-solving skills.
- **Visual Learning:** The chapter includes diagrams and visual aids that help students better understand the concepts of shapes and their measurements which is particularly useful for visual learners.
- **Foundation for Future Topics:** Mastery of basic concepts in this chapter provides a solid foundation for more advanced topics in geometry and mathematics, helping students build confidence for future learning.
- **Exam Preparation:** The solutions are designed to align with the NCERT syllabus and exam pattern, aiding in effective preparation for school exams and reinforcing key concepts.