

CBSE Class 4 Subject Mathematics

NCERT Solutions

Chapter -8

CARTS AND WHEELS

Read the following passage and answer the questions that follow:

1. List some round things in your notebook.

Ans. Clock, Bowl, Cup, Saucer, Plate, Merry-go-round, Wheel-chair, Pizza, Drum, Tyre, one-rupee coin, Moon, Hoop, Ball, Globe.

2. Have you ever gone to a bangle shop?

Ans. Yes, I have gone to a bangle shop.

3. Guess which of these bangles is of your size.

Ans. The small ones.

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

Ans. We take a piece of flexible wire of a reasonable length and wrap it around a tin of cylindrical talcum powder the ring thus obtained is a bangle. No, my teacher cannot wear this bangle.

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?

Ans. The other things around us that can be used to trace a circle are one-rupee coin, the rim of a glass, or a plate etc.

6. Which thing makes the smallest circle?

Ans. Of the above mentioned things, a one-rupee coin makes the smallest circle.

7. Which thing makes the biggest circle?

Ans. Of the above mentioned things, a plate makes the biggest circle.

8. Do you play these games?

Ans. Yes, I play these games.

9. Which song do you sing when you play these?

Ans. I sing the following song while playing these games: “I sent a letter to my father, on the way I dropped it. Someone came and picked it up and put it my pocket. Pocket, pocket, pocket.”

10. Why do we make a circle in each of these games?

Ans. We make a circle in each of these games because it has no sides and no corners. Also, each child occupies one’s place without any preference of position.

11. What if a rectangle was made? Discuss.

Ans. If a rectangle is made, the position of a child can be identified easily. One cannot run smoothly because of the corners.

12. Think of some other games you play by making circles.

Ans. Some other games we play by making circles are:

(i) Passing a parcel.

(ii) Musical chair race.

13. Making a Circle:

(a) Is any of these a good drawing of a circle. Discuss

Ans. (a) None of these is a good drawing of a circle.

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

Ans. (b) Yes, I can draw a circle on the floor with a chalk.

14. Making a Circle with a Rope

(a) Which group made the smallest circle?

Ans. (a) Shweta's group made the smallest circle.

(b) How long was their rope?

Ans. (b) Their rope was 7 metre long.

(c) Does a longer rope make a bigger circle? Can you say why?

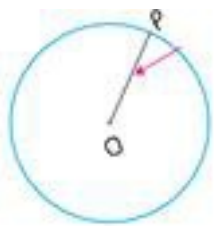
Ans. (c) Yes, a longer rope will make a bigger circle because its radius is longer.

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

Ans. (d) The radius of the smallest circle was 7 metre.

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

Ans. Take any point P on the boundary of the circle. Join P to dot O in the circle. Then, measure OP, it is equal to one and a half centimeter.



16. Write the length of their radius.

(a) Radius of the circle (A)

Ans. (a) Radius of the circle (A)= One cm.

(b) Radius of the circle (B)

Ans. (b) Radius of the circle (B) = One and half cm.

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

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

Ans. (a) Yes, all the wheels of a bicycle or a bullock cart are of the same radius.

(b) Have you seen a tractor or a road roller?

Ans. Yes, I have seen a tractor and also a road roller.

(c) Which is the biggest wheels you have ever seen?

Ans.(c) The biggest wheel I have ever seen is that of a merry-go-round.

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

Ans. All the wheels of a tractor or road-roller are not of the same radius.

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

Ans. Kali can look for more grass to eat.

20. Using a Compass.

(a) Have you seen a compass before? How will you use this to make a circle.

- Open the compass.
- Press the tip of the compass on the paper. Hold the compass from the toe.
- Without moving the tip, try to move the pencil around.
- Do you get a circle?

Ans. (a) Yes, we get a circle.

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

Ans. (b) The circle is better than the one we made earlier without a compass, its radius is OP and is of length 2 cm.



21. Guess:

(a) Why did Naina get such a drawing? Discuss.

Ans. (a) Naina got such a drawing because of the shifting of the tip of compass by her.

(b) Can a circle have more than one centre?

Ans. (b) No, A circle can not have more than one centre.

22. Balancing Act:

(a) Can you balance a plate on your finger?

Ans. (a) Yes, I can balance a plate on my finger.

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

Ans. (b) A plate or a round lid can balance on the finger at its centre.

23. Guess:

(a) Whose top will not spin at all?

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

(b) Whose top will spin a little?

Ans. (b) Guddo's top will spin a little.

(c) Whose top will spin the best?

Ans. (c) Appu's top will spin the best.

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

Ans. (d) In Appu's top the stick is nearest to the centre.