**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 you size.**

**Ans.** The small ones.

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

**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.

**(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.

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**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.

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**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.