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Question: 1

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

Answer: List of round things around us are as follows:

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

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Round Bangle

Question: 2

Have you ever gone to a bangle shop?

Answer: Yes, I went 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. No, my teacher cannot wear this bangle.

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: The other things that can be used to trace a circle are coin, plate, cap of a bottle, coin etc.

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?

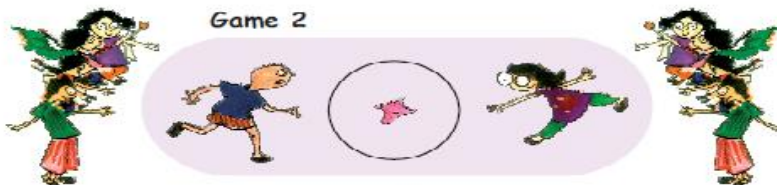
Answer: (a) Circle made with the help of a pen cap is the smallest circle

(b) Circle made with the help of a plate in which we have food is the biggest circle

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Games with Circles

Children are playing some games



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: There are some games played by making rectangles. But a game like cricket need a circle because if a rectangle is made in a cricket, the distance of boundary from the players will be unequal.

Question: 10

Think of some other games you play by making circles.

Answer: Games played by making circles are musical chair race, passing a parcel etc.

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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.



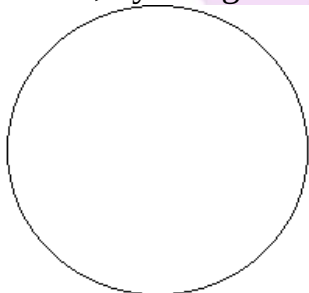
Question: 11

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

Answer: No, none of these are good in drawing a circle

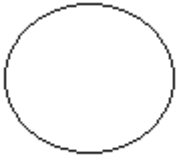
(b) Can you draw a circle on the floor with a chalk? Try.

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



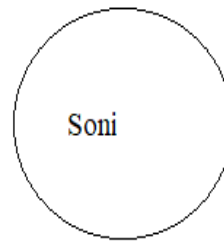
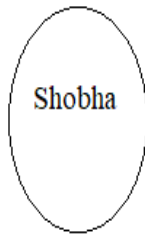
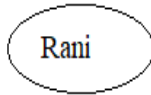
(c) Also draw a circle in your notebook using a pencil.

Answer: The circle drawn by 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

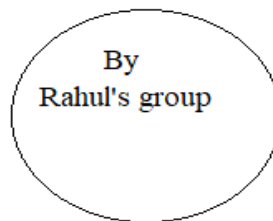
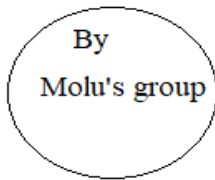
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Making a Circle with a Rope

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

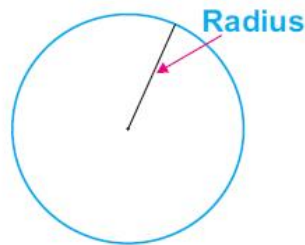
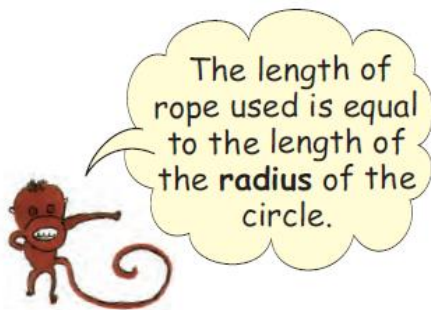
(b) How long was their rope?

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 it can make a bigger circle. This is because longer rope acts as a bigger radius. Hence, circle made by the longest rope is the biggest circle

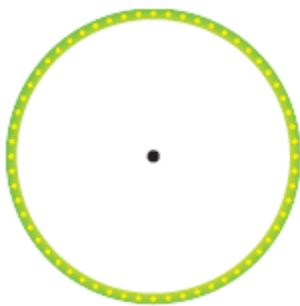


(d) What was the radius of the smallest circle?

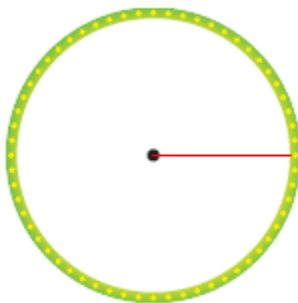
Answer: The smallest circle radius was 2 metre

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

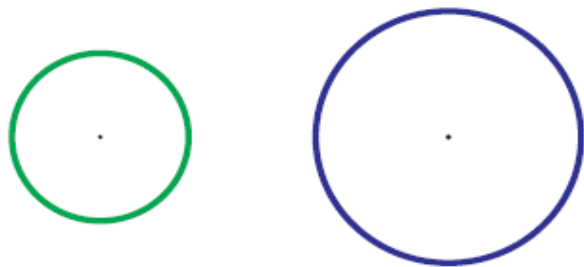
Question: 14

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

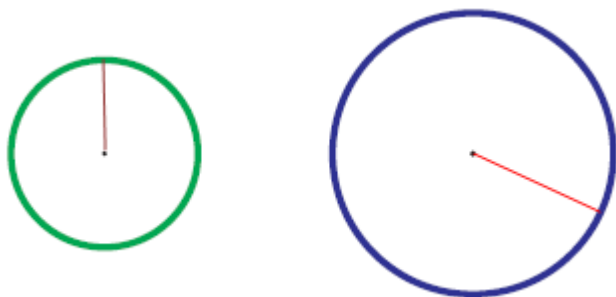
Answer: The radius drawn by all the friends is same

Question: 15

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



Answer:



Here, the radius of bigger circle is the longer.

Question: 16

Measure the radius of both the 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 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.

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Question: 23

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



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?

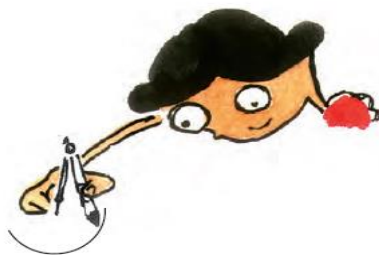
Answer: Yes, I got a circle.

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 better than the earlier circle which was drawn without using the compass. The radius of the circle is 3 centimetre.

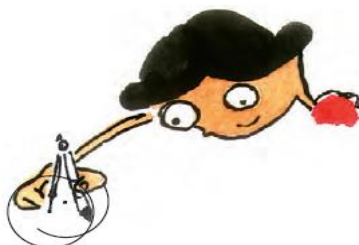
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Is It a Circle?

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 drawing? Discuss. Can a circle have more than one centre?

Answer: Naina got such drawing as she had changed the centre of the circle. No, a circle cannot have more than one centre.

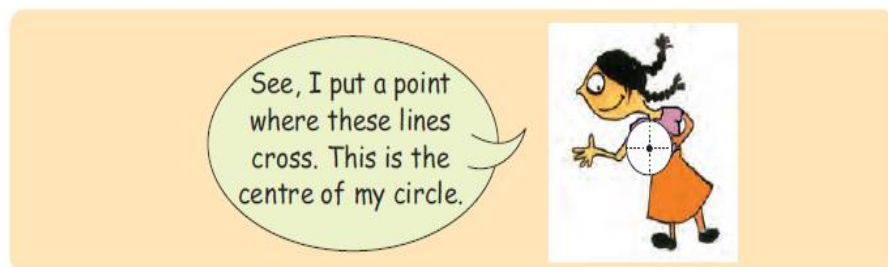
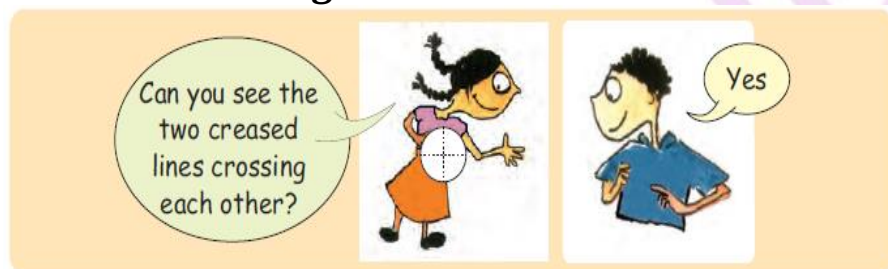


Question: 26

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

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

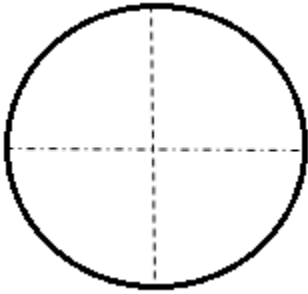
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Question: 27

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

Answer: Trace the circle by using a bangle on notebook. Now, cut the circle from its outline. Fold the circle in half. Again fold it half. Now, open the folded circle. Here, the crossing point of the two creased line is its centre.



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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. It is very difficult as it requires a lot of practice.

Question: 29
You also try to balance a plate or a round lid on your finger. Where does it balance?

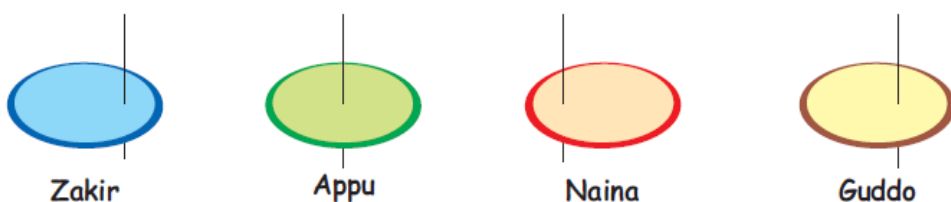
Answer: The centre of a plate or a round lid is the place where we balance while trying on our finger.

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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 top 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.