

**Class Notes**

**Class: 4**

**Chapter: 8**

**Subject: Mathematics**

**Carts And Wheels**

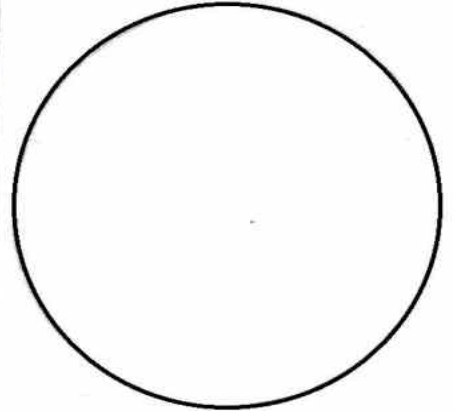
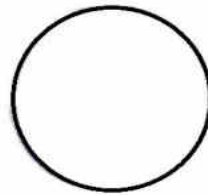
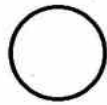
**COPY THE CONTENT IN YOUR MATHS WORKBOOK**

1. Use the following to draw circles:

(a) A finger ring

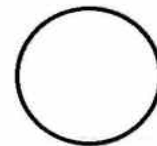
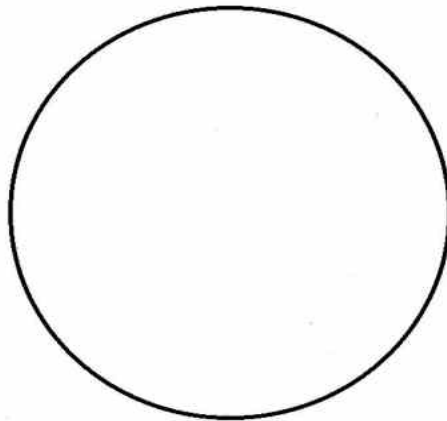
(b) A bottle cap

(c) A bangle



(d) The top of a glass

(e) A 25 paise coin

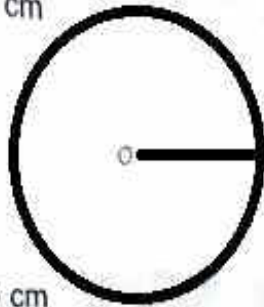


(i) Which object makes the biggest circle? Top of a glass

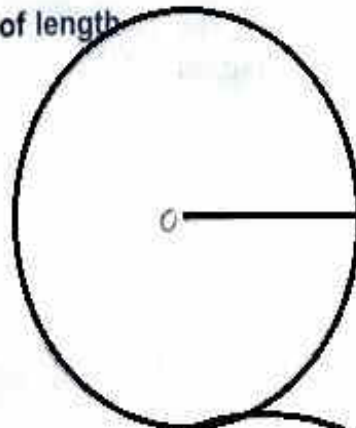
(ii) Which object makes the smallest circle? 25 paise coin

2. Draw circles using a pen and a string of length

(a) 2 cm

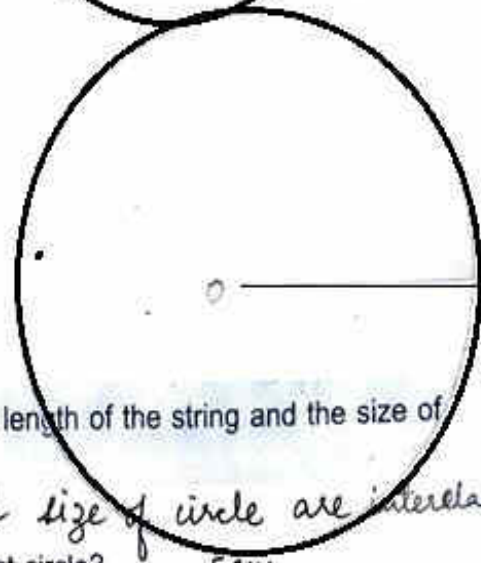
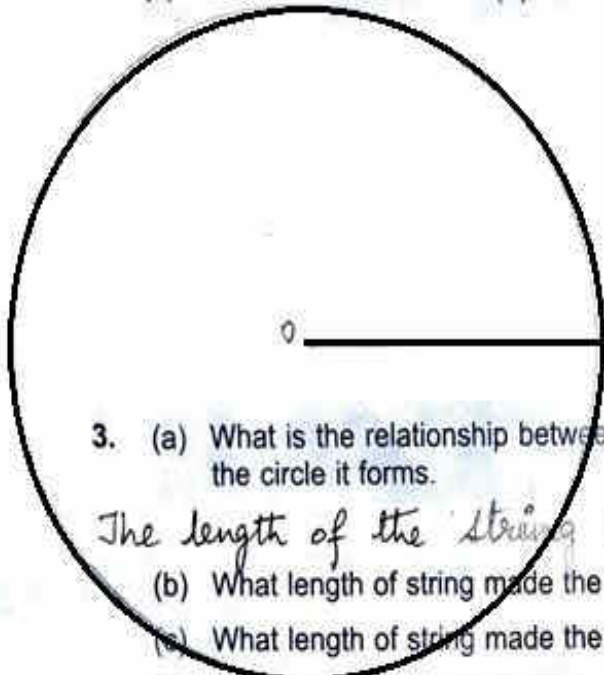


(b) 3 cm



(c) 5 cm

(d) 4 cm



3. (a) What is the relationship between the length of the string and the size of the circle it forms.

*The length of the string and size of circle are interrelated*

(b) What length of string made the largest circle?

*5cm*

(c) What length of string made the smallest circle?

*2cm*

(d) The length of rope equals the size of the circle.

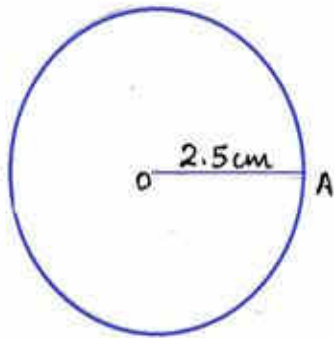
(e) (i) Which famous games conducted every 4 years, use circles as a part of their symbol?

(ii) Draw and colour the symbol?



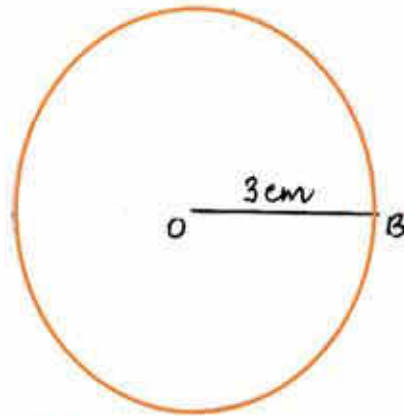
4. Draw circles of the following radii. Mark their centre. Measure and name the radius.

(a) 2.5 cm



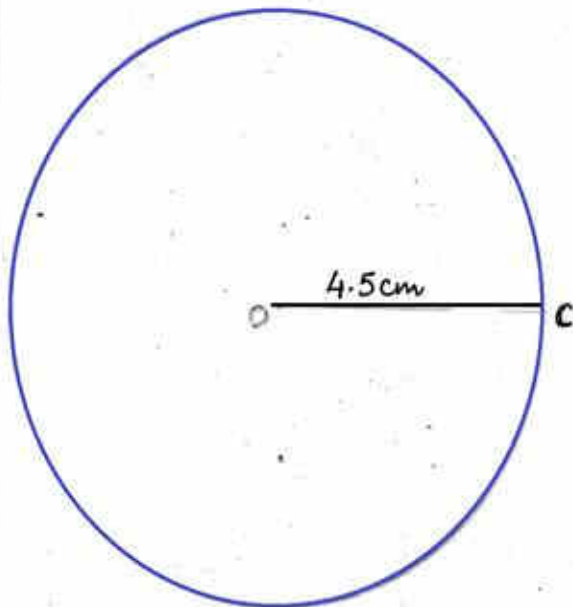
**Centre = O**  
**Radius = OA (2.5cm)**

(b) 3 cm



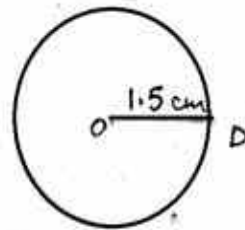
**Centre = O**  
**Radius = OB (3cm)**

(c) 4.5 cm



**Centre = O**  
**Radius = OC (4.5cm)**

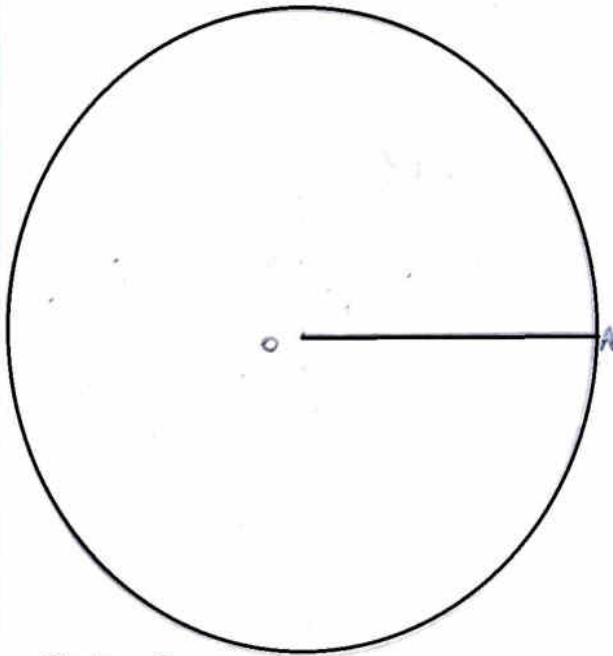
(d) 1.5 cm



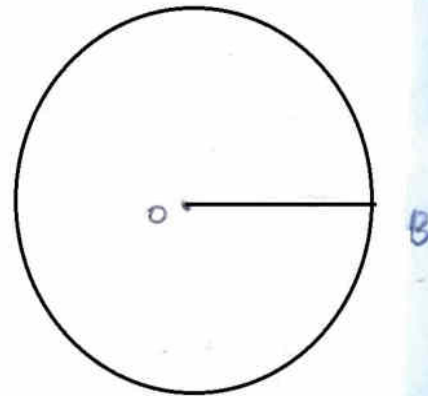
**Centre = O**  
**Radius = OD (1.5cm)**

(e) 5 cm

(f) 3.5 cm



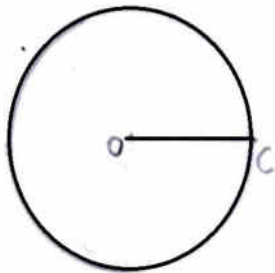
Centre = O  
Radius = OA (5 cm)



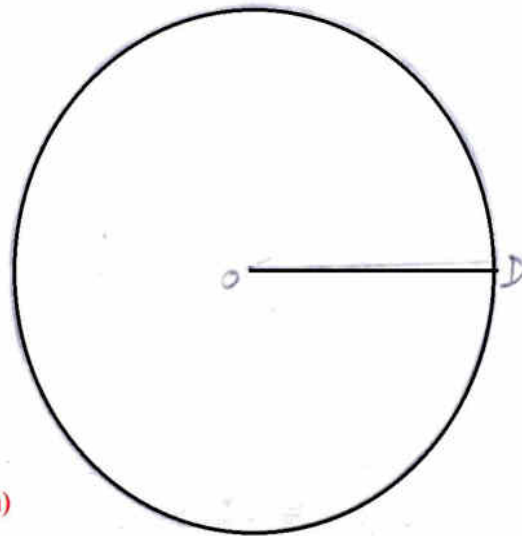
Centre = O  
Radius = OB (3.5)

(g) 2 cm

(h) 4 cm



Centre = O  
Radius = OC (2cm)



Centre = O  
Radius = OD (4cm)

1. The following are the wheels of some means of transport. Put them in ascending order according to their size



Bullock Cart



Bicycle



Tractor



Tricycle

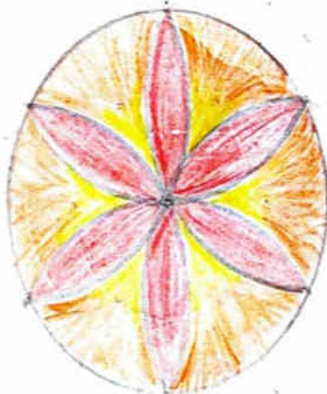


Car

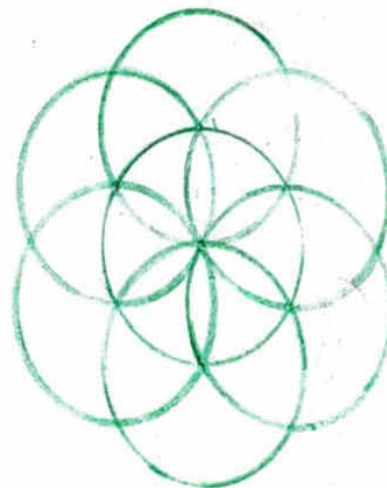
**DO IT YOURSELF.**

2. Using only a compass, make 2 designs using circles and curved lines. Colour them.

(a)



(b)



## PARTS OF A CIRCLE

### 1. Fill in the blanks:

- (a) A circle has only one Centre.
- (b) A diameter divides the circle into two equal parts and always passes through the centre of the circle.
- (c) All the radii of a circle are of equal length.
- (d) If radius = 3 cm then the diameter is 6 cm.
- (e) Diameter of the circle is the longest chord of the circle.
- (f) If we join any two points on a circle we get a Chord.
- (g) All chords have different lengths.
- (h) All radii have equal lengths.
- (i) A circle is a simple closed curve.
- (k) The distance around the circle or the length of the circle is called its Circumference.

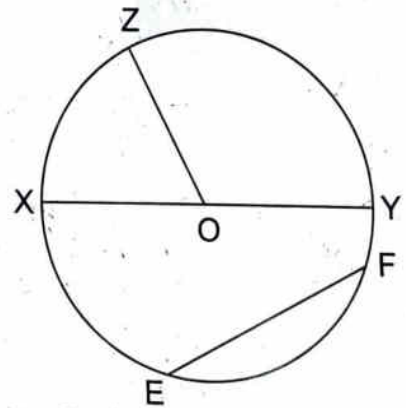
### 2. Look at the figure given below:

Now answer the following questions:

- (a) (i) OX is called a Radius
- (ii) XY is called a Diameter
- (iii) OZ is called a Radius
- (iv) EF is called a Chord

#### (b) Say True/False:

- |                                                      |       |
|------------------------------------------------------|-------|
| (i) $OX = OZ$                                        | True  |
| (ii) $OE = OF$                                       | True  |
| (iii) $XY = 2 \text{ times } OX$                     | True  |
| (iv) $XY = 2 \text{ times } OZ$                      | True  |
| (v) X, E, F, Y and Z are points on the circumference | True  |
| (vi) $XY = EF$                                       | False |

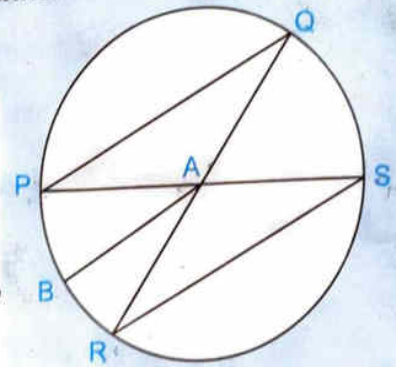


- (c) (i) If  $OZ = 3$  cm, then  $XY = 6$  cm  
(ii) If  $OZ = 4$  cm,  $OE = 4$  cm  
(iii) If  $XY = 10$  cm,  $OF = 5$  cm  
(iv) If  $EF = 9$  cm, then  $XY > 9$  cm  
(v) If  $XY = 12$  cm, then  $EF < 12$  cm

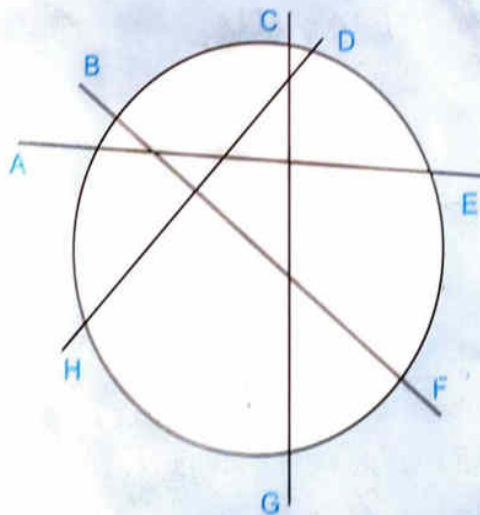
3. Study the figure given below and fill in the blanks:

Name

- (a) Centre of the circle A  
(b) 2 Chords of the circle PQ, RS  
(c) 5 radii of the circle AP, AQ, AS, AR and AB  
(d) 2 diameters of the circle PS,  
QR



4. CHALLENGE

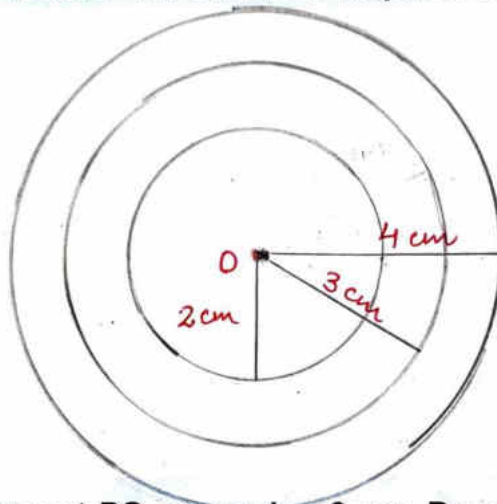


Only one of the four lines is a diameter. Name it? BF

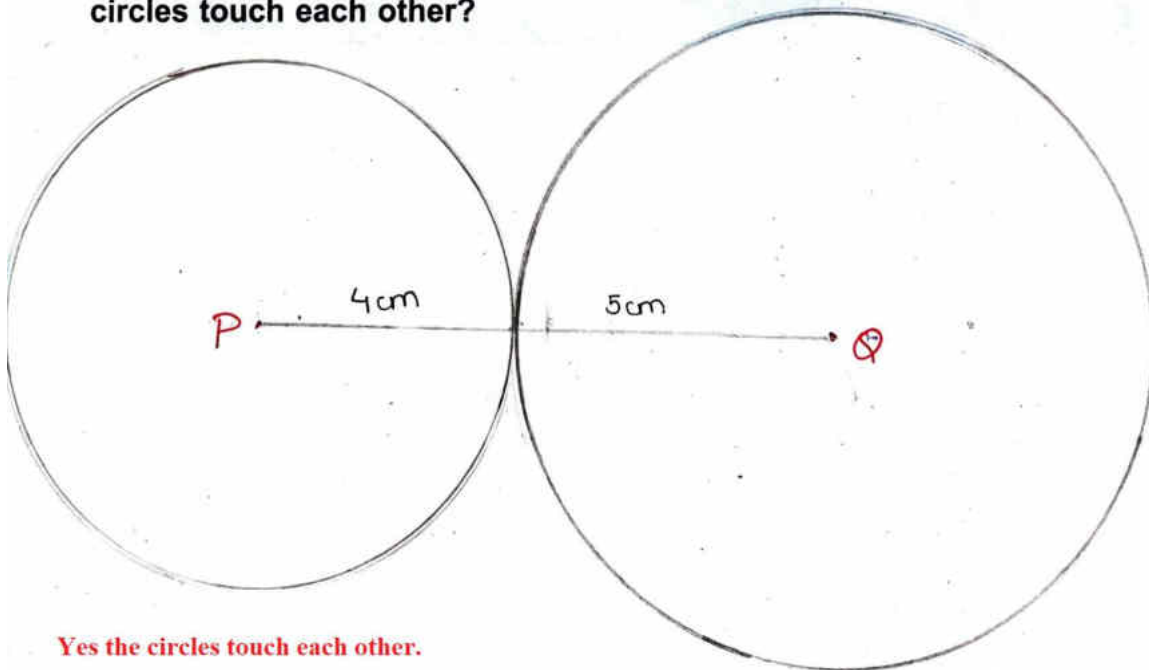
5. Complete the Table

Circle	A	B	C	D	E	F
Radius	34 cm	30 cm	13 cm	22 cm	18 cm	14 cm
Diameter	68 cm	60 cm	26 cm	44 cm	36 cm	28 cm

6. Draw a circle with radius 2 cm. Using the same centre draw 2 more circles, with radius 3 cm and 4 cm respectively.



7. Draw a line segment PQ measuring 9 cm. Draw a circle with centre P of radius 5 cm and another circle with centre Q of radius 4 cm. Do the circles touch each other?



Yes the circles touch each other.