

Measuring Circles Exercise Set 2

1. Jonah measured the diameter and circumference of several circular objects and recorded his measurements in the table.

object	diameter (cm)	circumference (cm)
half dollar coin	3	10
flying disc	23	28
jar lid	8	25
flower pot	15	48

One of his measurements is inaccurate (although he did GREAT on the rest! Nice work Jonah!). Which measurement is it? Explain how you know.

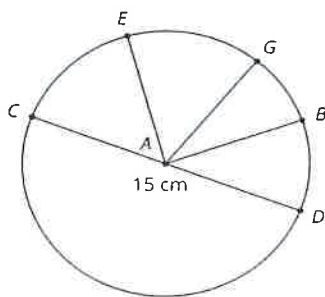
The measurement for the flying disc. It should be about 3 times the diameter.

2. Complete the table. Use one of the approximate values for π discussed in class (for example 3.14, $\frac{22}{7}$, 3.1416). Explain or show your reasoning.

object	diameter	circumference
hula hoop	35 in	110 in
circular pond	177 ft	556 ft
magnifying glass	5.2 cm	16 cm
car tire	22.8 in	71.6 in

* π →

3. A is the center of the circle, and the length of CD is 15 centimeters.

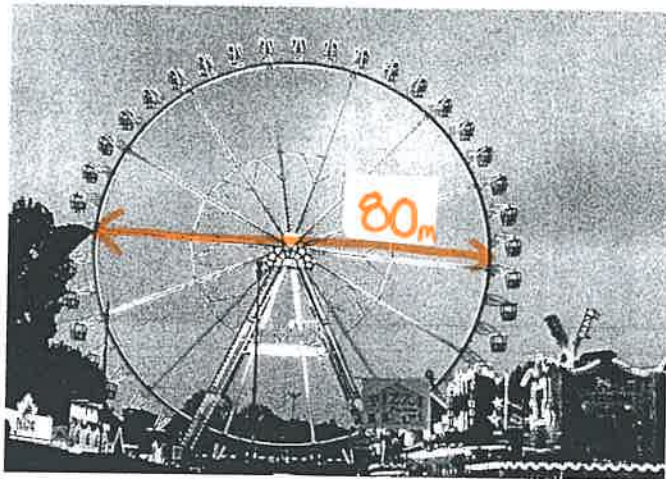


- a. Name a segment that is a radius. How long is it? 7.5 cm
AC, AD, AB, AE, AG
- b. Name a segment that is a diameter. How long is it?

CD

15 cm

4. Here is a picture of a Ferris wheel. It has a diameter of 80 meters.



a. On the picture, draw and label a diameter.

b. How far does a rider travel in one complete rotation around the Ferris wheel? *Circumference*

$$C = \pi d$$

$$C = \pi 80$$

$$C = 251.3$$

About 251m

5. Identify each measurement as the diameter, radius, or circumference of the circular object and circle the matching part. Then, identify the measure of each part.

a. The length of the minute hand on a clock is 5 in.

Diameter: 10 in Circumference: 31 in Radius: 5 in

b. The distance across a sink drain is 3.8 cm.

Diameter: Circumference: 12 cm Radius: 1.9 cm

c. The tires on a mining truck are 14 ft tall.

Diameter: Circumference: 44 ft Radius: 7 ft

d. The fence around a circular pool is 75 ft long.

Diameter: 24 ft Circumference: Radius: 12 ft

e. The distance from the tip of a slice of pizza to the crust is 7 in.

Diameter: 14 in Circumference: 44 in Radius:

f. Breaking a cookie in half creates a straight side 10 cm long.

Diameter: Circumference: 31 cm Radius: 5 cm

g. The length of the metal rim around a glass lens is 190 mm.

Diameter: 60 mm Circumference: Radius: 30 mm

h. From the center to the edge of a DVD measures 60 mm.

Diameter: 120 mm Circumference: 380 mm Radius: