

**Calculate the diameter and radius of a circle. Show all steps/work just like in class.  
Sometimes drawing a picture of the problem can help you visualize what is being asked.**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. The diameter of a bicycle wheel is 46 cm. Each wheel has several spokes, which are rods from the edge of the tire to the center of the wheel. If each bicycle spoke is the length of the wheel's radius, how long is each spoke?



a. If each wheel has eight spokes, what is the total length of spokes for both wheels? How did you find this?

2. Lawrence is training for a triathlon, which is a race where he has to swim, bike, and run. He has to swim directly across a lake through the center to complete the swimming portion of the race. He knows the radius of the lake is  $\frac{3}{4}$  of a mile. How far will he have to swim in the triathlon?

3. You ordered a cake from your local bakery for your grandma's birthday but you can't remember what size you ordered. You know you ordered the cake with a diameter of 14.5 inches. Use the chart below to calculate how much money you owe. Explain how you found your answer.

Size	Radius	Diameter	Price
Small	5.5		\$10.99
Medium	7.25 in		\$15.99
Large	8.2		\$21.99

4. Party Pies, a local bakery, sells pies in three sizes: medium, large and party size. They are looking for new square boxes in which to package their pies. Box A has a length of 20.5 in. Box B has a length of 32 in. Box C has a length of 14 in. Can you help Party Pies calculate which box they should use for each size of pie?

a. Fill in the table below.

Size	Radius	Diameter
Medium	6.5 in	
Large	$10\frac{1}{4}$ in	
Party Size	$15\frac{1}{2}$ in	

b. Based on the table and the lengths of the square boxes, which box should Party Pies use for each size? Explain how you found your answer.