

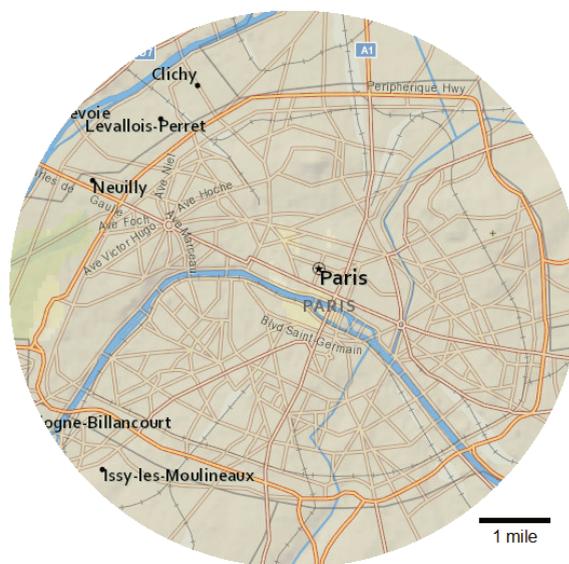
Lesson 10 Practice Problems

1. For each problem, decide whether the circumference of the circle or the area of the circle is most useful for finding a solution. Explain your reasoning.
 - a. A car's wheels spin at 1000 revolutions per minute. The diameter of the wheels is 23 inches. You want to know how fast the car is travelling.
 - b. A circular kitchen table has a diameter of 60 inches. You want to know how much fabric is needed to cover the table top.
 - c. A circular puzzle is 20 inches in diameter. All of the pieces are about the same size. You want to know about how many pieces there are in the puzzle.
 - d. You want to know about how long it takes to walk around a circular pond.

2. The city of Paris, France is completely contained within an almost circular road that goes around the edge. Use the map with its scale to:

- a. Estimate the circumference of Paris.

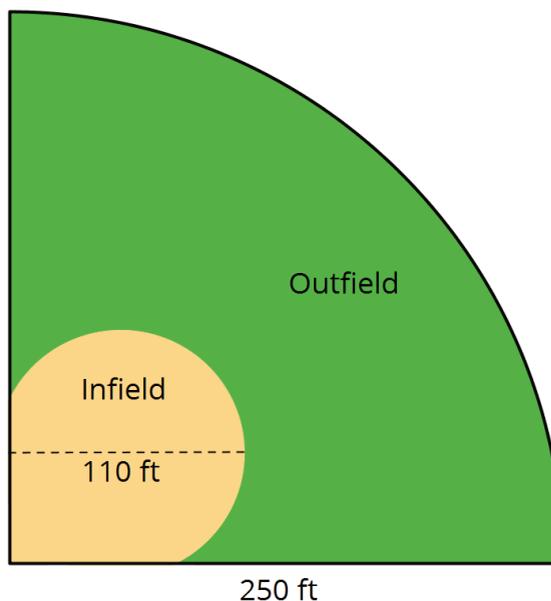
- b. Estimate the area of Paris.



3. Here is a diagram of a softball field:

a. About how long is the fence around the field?

b. About how big is the outfield?



4. While in math class, Priya and Kiran come up with two ways of thinking about the proportional relationship shown in the table.

x	y
2	?
5	1750

Both students agree that they can solve the equation $5k = 1750$ to find the constant of proportionality.

- Priya says, "I can solve this equation by dividing 1750 by 5."
- Kiran says, "I can solve this equation by multiplying 1750 by $\frac{1}{5}$."

a. What value of k would each student get using their own method?

b. How are Priya and Kiran's approaches related?

c. Explain how each student might approach solving the equation $\frac{2}{3}k = 50$.

(From Unit 2, Lesson 5.)