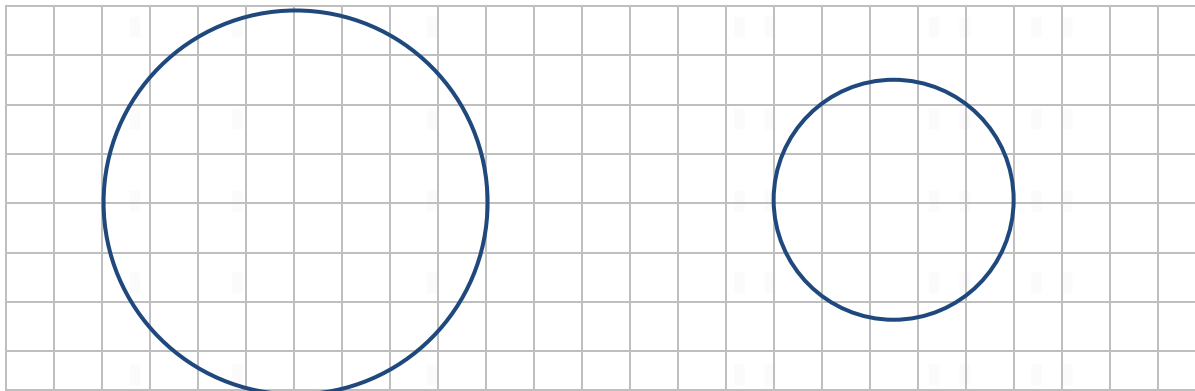


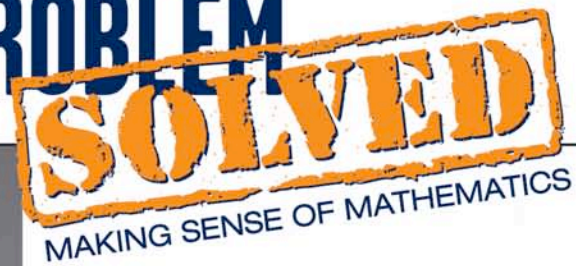
1. Estimate the area of each of the following circles by counting the squares. Then find the approximate area by using the formula $A = \pi r^2$ and substituting 3 for pi. How do your answers compare?



2. The Cedar Valley Recreational Soccer League recommends that fields be the following size for each age category.

Age Category	Field Size	Radius of Center Circle
U-12 (under age 12)	50 yards by 80 yards	10 yards
U-10 (under age 10)	40 yards by 70 yards	8 yards
U-8 (under age 8)	25 yards by 50 yards	6 yards

What is the approximate area of the center circle on each field? Use 3.14 for pi or use the pi key on your calculator.



- Molly's family is deciding whether to buy a 12-foot trampoline, a 14-foot trampoline, or a 16-foot trampoline. Each measurement tells the diameter of a round trampoline mat, rather than the trampoline frame. Approximately how many square feet of jumping area does each trampoline have?
- The Cookie Factory has decided to add monster cookies to their selection. They are trying to decide on a fair price for the cookies. A regular cookie has a radius of 2 in. and costs \$0.85. The large cookie will have a radius of 4 in. What is a fair price for the large cookie?
- Ms. Smith put the following problem on a quiz.

What is the area of a circle with a diameter of 2.40 mm?

Six students gave answer A and five students gave answer B. What is incorrect about each answer?

Answer A

$$A = \pi r^2$$

$$A = \pi(2.40)^2$$

$$A \approx (3.14)(5.76)$$

$$A \approx 18.09 \text{ sq. mm}$$

Answer B

$$A = \pi r^2$$

$$A = \pi(1.20)^2$$

$$A = (3.14)(1.44)$$

$$A = 4.52 \text{ sq. mm}$$