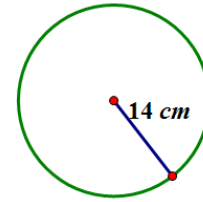


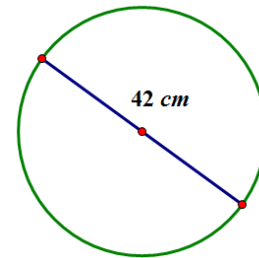
Problem Set

1. Find the circumference.
 - a. Give an exact answer in terms of π .
 - b. Use $\pi \approx \frac{22}{7}$ and express your answer as a fraction in lowest terms.
 - c. Use the π button on your calculator, and express your answer to the nearest hundredth.

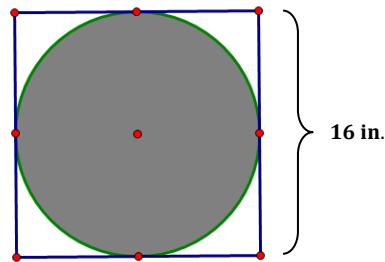


Find the circumference.

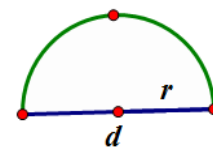
- d. Give an exact answer in terms of π .
- e. Use $\pi \approx \frac{22}{7}$, and express your answer as a fraction in lowest terms.



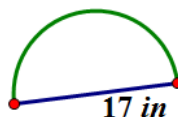
2. The figure shows a circle within a square. Find the circumference of the circle. Let $\pi \approx 3.14$.



3. Consider the diagram of a semicircle shown.
 - a. Explain in words how to determine the perimeter of a semicircle.
 - b. Using d to represent the diameter of the circle, write an algebraic equation that will result in the perimeter of a semicircle.
 - c. Write another algebraic equation to represent the perimeter of a semicircle using r to represent the radius of a semicircle.

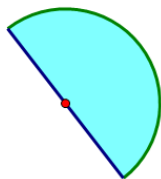


4. Find the perimeter of the semicircle. Let $\pi \approx 3.14$.

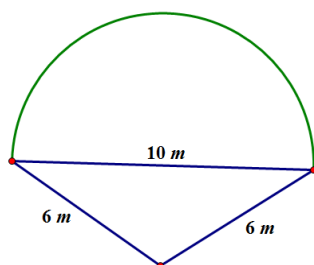


5. Ken's landscape gardening business makes odd-shaped lawns that include semicircles. Find the length of the edging material needed to border the two lawn designs. Use 3.14 for π .

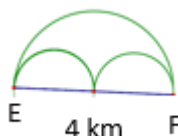
a. The radius of this flower bed is 2.5 m.



b. The diameter of the semicircular section is 10 m, and the lengths of the sides of the two sides are 6 m.



6. Mary and Margaret are looking at a map of a running path in a local park. Which is the shorter path from E to F , along the two semicircles or along the larger semicircle? If one path is shorter, how much shorter is it? Let $\pi \approx 3.14$.



7. Alex the electrician needs 34 yards of electrical wire to complete a job. He has a coil of wiring in his workshop. The coiled wire is 18 inches in diameter and is made up of 21 circles of wire. Will this coil be enough to complete the job? Let $\pi \approx 3.14$.

