Assignment

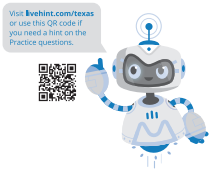
Write

Explain in your own words how to derive the formula for the area of a circle.

Remember

A formula for the area of a circle is $A = \pi r^2$.

Practice



Determine the area of the circle, given each measurement. Use 3.14 for π and round to the nearest hundredth.

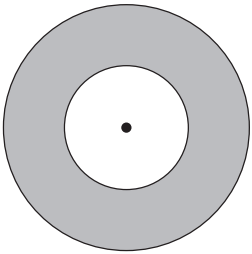
1. Diameter: 8 in.
2. Radius: 10 in.
3. Radius: 1.5 ft
4. Diameter: 8.8 yd
5. Diameter: $1\frac{3}{4}$ in.
6. Radius: $2\frac{1}{2}$ cm

Determine which pizza is the better buy in each situation.

7. The 10-inch diameter pizza for $8.99 or the 6-inch diameter pizza for $5.
8. The large 16-inch diameter pizza for $12.99 or the $26 X-large with a radius of 16 in.
9. The 12-inch diameter pizza for $12.50 or the 20-inch diameter pizza for $17.50.
10. The 4-inch radius pizza for $3 or the 8-inch radius pizza for $14.
11. Two 12-inch diameter pizzas for $12.98 or one large 14-inch diameter pizza for $7.99.
12. The 1-inch diameter pizza bite for $1 or the 10-inch diameter pizza for $10.

Stretch

The radius of the small circle is 0.5 millimeter. The area of the large circle is 28.26 square millimeters. Calculate the area of the shaded region.



Review

Determine the circumference of each circle, given its radius or diameter. Use 3.14 for π and round to the nearest tenth.

1. Radius: 4.5 cm
2. Diameter: 12 ft

Determine each unit rate. Round your answer to the nearest thousandth if necessary.

3. 75 square feet of tile for $126
4. 420 miles in 6.5 hours

Compare the fractions in each pair using the symbol $>$, $<$, or $=$.

5. $\frac{3}{5}, \frac{2}{3}$
6. $\frac{6}{7}, \frac{8}{9}$