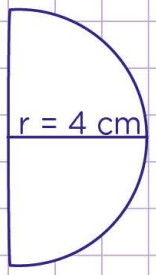
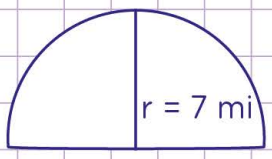
Name: ..... Class: .....

Semicircles: calculate area, perimeter, radius, and diameter

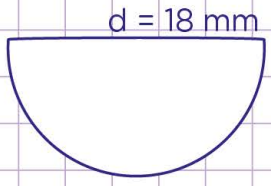
1. The radius of a semicircle is 4 cm. Find the perimeter of the semicircle. Use 3.14 for π.



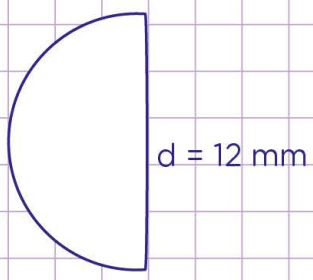
2. The radius of a semicircle is 7 miles. Find the area of the semicircle. Use 3.14 for π.



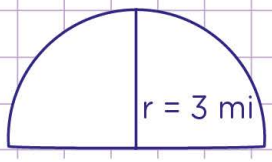
3. The diameter of a semicircle is 18 mm. Find the radius of the semicircle. Use 3.14 for π.



4. The diameter of a semicircle is 12 mm. Find the radius of the semicircle. Use 3.14 for π.



5. The radius of a semicircle is 3 miles. Find the area of the semicircle. Use 3.14 for π.

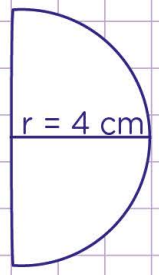


Solution

Name: ..... Class: .....

Semicircles: calculate area, perimeter, radius, and diameter

1. The radius of a semicircle is 4 cm. Find the perimeter of the semicircle. Use 3.14 for π.



Let's set up the formula for the perimeter (P) of the semicircle.

$P = \frac{2\pi r}{2} + 2r$

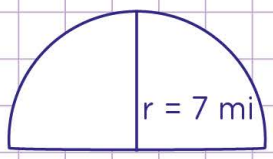
$P = \pi r + 2r$

$P = 3.14 \times 4\text{cm} + 2(4\text{cm})$

$12.56 + 8 = 20.56$ cm

So, the perimeter is 20.56 cm.

2. The radius of a semicircle is 7 miles. Find the area of the semicircle. Use 3.14 for π.



Let's set up the formula for the area of the semicircle.

$A = \frac{\pi r^2}{2}$

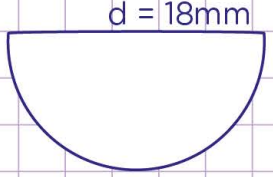
Substitude r = 7 mi into the formula.

$3.14 \times 7\text{ mi} \times 7\text{ mi} / 2$

$153.86\text{ mi} / 2 = 76.93\text{ mi}^2$

So, the area is 76.93 mi^2.

3. The diameter of a semicircle is 18 mm. Find the radius of the semicircle. Use 3.14 for π



Let's set up the formula for the diameter of the semicircle.

Diameter = 2r

18 mm = 2r

r = 18 mm/2

r = 9 mm

So the radius is 9 mm