

Name:

1.9 Rounding and circle area

1. Write in your notebook the formulas for the area and circumference of circles and these definitions:

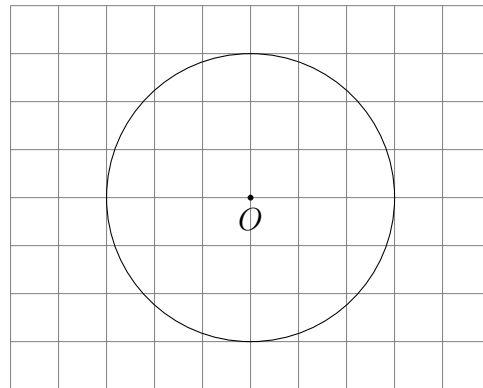
- The radius, r , is the distance from the center to the edge of a circle.
- The diameter, D , is the distance all of the way across a circle, two times the radius.
 $D = 2r$.
- The circumference, C , is the distance around the circle (its perimeter).

$$A = \pi r^2$$

$$C = \pi D = 2\pi r$$

2. Given the circle centered at O with radius $r = 3$. Leave an exact answer, in terms of π if necessary.

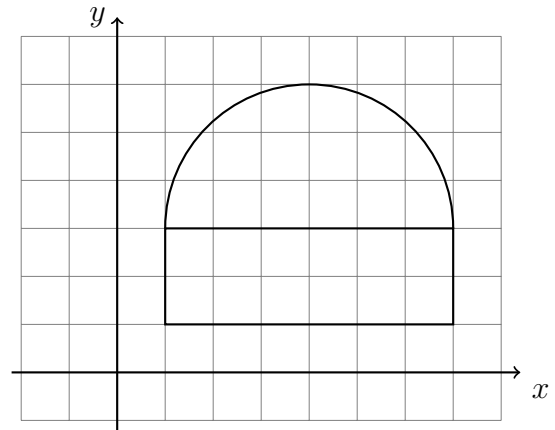
- (a) Find the circumference of circle O .



- (b) Find the area of the circle.

3. Find the area A and circumference C of a circle with radius 4 meters (in terms of π).
4. Find the area A and circumference C of a circle with radius 5 feet (in terms of π).

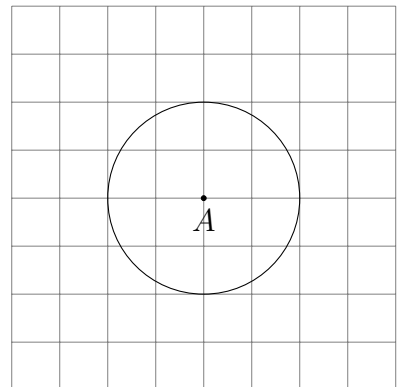
5. Find the area of the shape shown below composed of a rectangle and circular cap. Leave your answer as an exact value in terms of π .



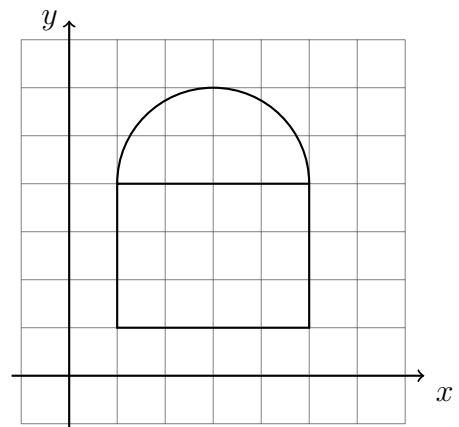
6. Given the circle centered at A with radius $r = 2$. Leave an exact answer, in terms of π if necessary.

(a) Find the circumference of circle A .

(b) Find the area of the circle.



7. Find the area of the shape shown below composed of a rectangle and circular cap. Leave your answer as an exact value in terms of π .



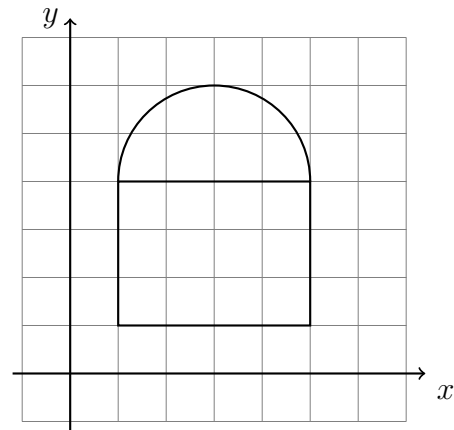
8. Mark each statement true or false.

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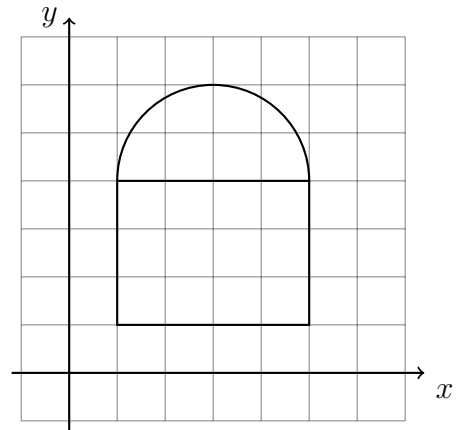
- (a) T F 3.14 is the exact value of π
- (b) T F 4π is the area of a circle with radius 2 in terms of π
- (c) T F $C = 10\pi \approx 31.4$ is an approximation
- (d) T F $3\sqrt{2}$ is an exact value
- (e) T F $0.707\dots$ is an approximation for $\frac{1}{\sqrt{2}}$

9. Find the area A and circumference C of a circle with radius 5 feet (in terms of π).

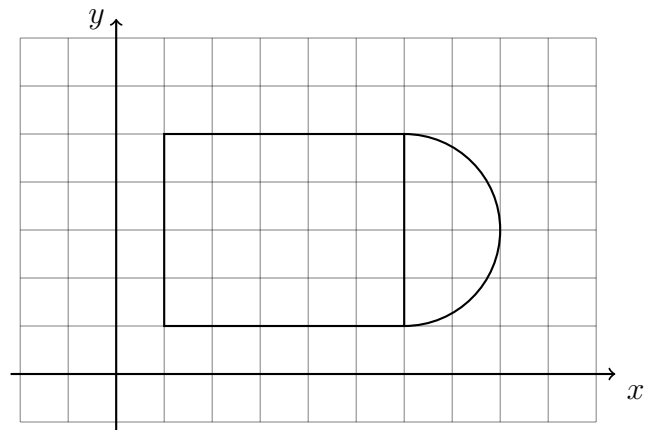
10. Find the area of the shape shown below composed of a rectangle and circular cap. Leave your answer as an exact value in terms of π .



11. Find the *perimeter* of the shape shown below composed of a rectangle and circular cap. Leave your answer as an exact value in terms of π .



12. Find the area of the shape shown below composed of a rectangle and a semi-circle.



13. Find the area of the shape shown below composed of a rectangle and a semi-circle.

