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PRACTICE DRILL 27—CIRCLES (MIDDLE AND UPPER LEVELS ONLY)



- 1. What is the circumference of the above circle? What is the area?
- 2. What is the area of a circle with radius 4?
- 3. What is the area of a circle with diameter 8?
- 4. What is the radius of a circle with area  $9\pi$ ?
- 5. What is the diameter of a circle with area  $9\pi$ ?
- 6. What is the circumference of a circle with area  $25\pi$ ?

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## Practice Drill 27—Circles

1. Circumference =  $10\pi$ . Area =  $25\pi$ .

Plug the radius into the circumference formula for a circle:  $C = 2\pi r = 2\pi(5) = 10\pi$ . Plug the radius into the area formula for a circle:  $A = \pi r^2 = \pi(5)^2 = 25\pi$ .

2. 16π

Plug the radius into the area formula for a circle:  $A = \pi r^2 = \pi (4)^2 = 16\pi$ .

**3**. 16π

Since d = 2r, the radius is 4(8 = 2r). Plug the radius into the area formula for a circle:  $A = \pi r^2 = \pi (4)^2 = 16\pi$ . Note: this is really the same circle as the previous question.

4.

3

Remember, you can find the radius from a circle's area by getting rid of  $\pi$  and taking the square root of 9.

5. 6

Find the radius from a circle's area by getting rid of  $\pi$  and taking the square root of 9. Then multiply the radius by 2 to find the diameter.

6. 10π

Find the radius from a circle's area by getting rid of  $\pi$  and taking the square root of 25. Then, plug the radius into the circumference formula for a circle:  $C = 2\pi r = 2\pi(5) = 10\pi$ .