

Pi (π) Worksheet

What is Pi (π)?

Pi (π) is the ratio of a circle's **circumference** to its **diameter**. It is an *irrational number*, which means its decimal never ends and never repeats. **A common approximation of π is 3.14.**

Formula for Circumference: $C = \pi d$ or $C = 2\pi r$

Formula for Area: $A = \pi r^2$

Where:

- **C** = Circumference
- **A** = Area
- **d** = Diameter
- **r** = Radius
- Use **$\pi \approx 3.14$**

Part A: Multiple Choice - Choose the best answer.

1. What does π represent?
 - a. The radius of a circle
 - b. The diameter of a circle
 - c. The ratio of circumference to diameter
 - d. The area of a circle
2. Which of the following is an approximation of π ?
 - a. 2.14
 - b. 3.14
 - c. 4.13
 - d. 5.31
3. Pi is:
 - a. A whole number
 - b. A rational number
 - c. An irrational number
 - d. An integer
4. The decimal form of π :
 - a. Ends after a few digits
 - b. Repeats a pattern
 - c. Never ends and never repeats
 - d. Is exactly 3.14
5. Which formula finds the circumference of a circle?
 - a. $C = \pi d$
 - b. $A = \pi r^2$
 - c. $d = 2r$
 - d. $C = r^2$

Part B: Vocabulary Matching - Match the term to its definition.

Term	Definition
6. Radius	A. Distance around a circle
7. Diameter	B. Distance from center to edge
8. Circumference	C. Distance across a circle through the center
9. Pi (π)	D. Ratio of circumference to diameter
10. Area	E. Space inside a figure

Part C: Circumference - Use $\pi = 3.14$.

11. Diameter = 4 cm C = _____

14. Diameter = 15 cm C = _____

12. Diameter = 8 cm C = _____

15. Diameter = 20 cm C = _____

13. Diameter = 10 cm C = _____

Part D: Area of Circles - Use $\pi = 3.14$.

16. Radius = 2 cm A = _____

19. Radius = 6 cm A = _____

17. Radius = 4 cm A = _____

20. Radius = 8 cm A = _____

18. Radius = 5 cm A = _____

Part E: True or False

21. ____ - Pi is exactly equal to 3.14.

22. ____ - Pi is an irrational number.

23. ____ - The circumference of a circle can be found using $C = \pi d$.

24. ____ - The radius is half the diameter.

25. ____ - Pi is the same for every circle.

Part F: Word Problems

26. A circular garden has a diameter of 12 feet. What is its circumference?

Answer: _____ feet

27. A circular table has a radius of 3 feet. What is its area?

Answer: _____ square feet

28. A bicycle wheel has a diameter of 28 inches. What is its circumference?

Answer: _____ inches

29. A circular fountain has a radius of 7 meters. What is its area?

Answer: _____ square meters
