Part A: Warm-Up (Radius & Diameter)

1. If the radius (r) is **5 cm**, the diameter (d) is: _____
2. If the diameter (d) is **12 m**, the radius (r) is: _____
3. If the radius (r) is **7.5 mm**, the diameter (d) is: _____

Part B: Finding Circumference

Calculate the circumference for each circle. Round your answer to **two decimal places**.

1. A circle with a diameter of **10 cm**.
    - *Calculation:* _____ **Answer:** _____
2. A circle with a radius of **4 m**.
    - *Calculation:* _____ **Answer:** _____
3. A bicycle wheel has a radius of **30 cm**. How far does it roll in one full turn?
    - *Calculation:* _____ **Answer:** _____

Part C: Finding Area

Calculate the area for each circle. Remember to use **square units** (e.g., cm^2).

1. A circle with a radius of **6 cm**.
    - *Calculation:* _____ **Answer:** _____
2. A circle with a diameter of **16 m**. *(Hint: Find the radius first!)*
    - *Calculation:* _____ **Answer:** _____
3. A circular garden has a diameter of **8 m**. How much grass seed is needed to cover the whole garden?
    - *Calculation:* _____ **Answer:** _____

Part D: The Challenge (Working Backwards)

1. The circumference of a circle is **31.4 cm**. What is the **diameter**?
    - *Calculation:* _____ **Answer:** _____
2. If a circle has an area of **78.5 cm^2**, what is its **radius**?
    - *Calculation:* _____ **Answer:** _____

Bonus Question!

If you double the radius of a circle, does the **Area** double as well *(Circle one)*: **YES** / **NO**

Explain why: _____

The Pizza Party Dilemma You are ordering pizza for a class party. A **Large** pizza has a diameter of **40 cm**, and a **Medium** pizza has a diameter of **30 cm**.

- **A)** Calculate the area of one Large pizza.
- **B)** Calculate the area of one Medium pizza.
- **C)** Does one Large pizza give you more food than two Medium pizzas combined? Show your math to prove your answer.

Answer Key

- **Part A:** 1) 10 cm, 2) 6 m, 3) 15 mm.
- **Part B:** 1) 31.4 cm, 2) 25.12 m, 3) 188.4 cm.
- **Part C:** 1) 113.04 cm^2, 2) 200.96 m^2, 3) 50.24 m^2.
- **Part D:** 1) 10 cm, 2) 5 cm.
- **Bonus:** No (The area actually quadruples because the radius is squared!).