## Unit 3, Lesson 7: Exploring the Area of a Circle

1. The $x$-axis of each graph has the diameter of a circle in meters. Label the $y$-axis on each graph with the appropriate measurement of a circle: radius $(m)$, circumference $(m)$, or area $\left(\mathrm{m}^{2}\right)$.



2. a. Here is a picture of two squares and a circle. Use the picture to explain why the area of this circle is more than 2 square units but less than 4 square units.

b. Here is another picture of two squares and a circle. Use the picture to explain why the area of this circle is more than 18 square units and less than 36 square units.

3. Circle A has area $500 \mathrm{in}^{2}$. The diameter of circle B is three times the diameter of circle A. Estimate the area of circle B.
4. Lin's bike travels 100 meters when her wheels rotate 55 times. What is the circumference of her wheels?
(from Unit 3, Lesson 5)
5. Find the circumference of this circle.

(from Unit 3, Lesson 3)
6. Priya drew a circle whose circumference is 25 cm . Clare drew a circle whose diameter is 3 times the diameter of Priya's circle. What is the circumference of Clare's circle?
(from Unit 3, Lesson 3)
