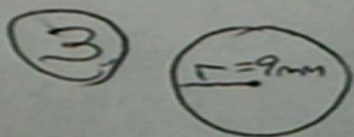


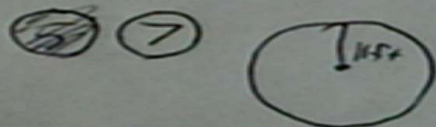
March 2, 2022

Mr. Reemsen

Example Answers for Homework 8.6: Circles, 3, 7, 21



$$d = 2r$$
$$\text{so } d = 2 \cdot 9\text{mm}$$
$$\text{so } d = 18\text{mm.}$$



$$\text{Circumference} = 2\pi r = 2 \cdot 3.14 \cdot 11\text{ft} = 22\text{ft} \cdot 3.14 = 69.08\text{ft}$$

(calc)

$$\text{Circumference} \approx 69.1\text{ft}$$

$$\text{area} = \pi r^2 = 3.14 (11\text{ft})^2 = 3.14 (121\text{ft}^2) = 379.94\text{ft}^2$$

$$\text{area} \approx 379.9\text{ft}^2$$

②③ The tire has a diameter of 29.10 inches. ~~How~~ In one turn, a point on the tire will move a distance equal to the circumference.

$$\text{Circ} = 2\pi r = \pi d = (3.14)(29.1\text{in})$$

$$\text{Circ} = 91.083\text{inches (calc)}$$

Bonus: A mile is 5280 ft = 5280 \* 12 inches = 63,360 inches (calc).

~~Revolutions = miles~~ Revolutions \* circ = 1 mile,

$$\text{so } \text{Rev} = \frac{63,360\text{ inches}}{91.083\text{ inches}} \approx 696\text{ revolutions}$$