

Florida Geometry
Lesson 10B-8 - Practice and Problem-Solving Exercises Solutions

8. There are an infinite number of points on \overline{AK} , which is 10 units long, and an infinite number of points on \overline{CH} , which is 5 units long. So the probability is $\frac{5}{10} = \frac{1}{2}$.

15. The light is red for 30 seconds out of every 75 seconds, so the probability is $\frac{30}{75} = \frac{2}{5}$, or 40%.

16. The probability that she called in the first 20 minutes of an hour (60 minutes) is $\frac{20}{60} = \frac{1}{3}$, or about 33%.

20. $A_{\text{square}} = 12^2 = 144$

$$r = 3$$

$$A_{\text{circle}} = \pi 3^2 = 9\pi$$

$$A_{\text{shaded}} = 4(9\pi) = 36\pi$$

The probability is $\frac{36\pi}{144} = \frac{\pi}{4}$, or about 78.5%.

38. $C = 2\pi r$

$$20\pi = 2\pi r$$

$$10 = r$$

$$A = \pi r^2 = \pi(10)^2 = 100\pi$$

The area is $100\pi \text{ ft}^2$.

39. $\frac{30}{360} \cdot \pi(12^2) = 12\pi$

The area is $12\pi \text{ cm}^2$.