

10-3 Area of Circles

SWBAT: Find the area of Circles using prior knowledge of π and radius.

Area of a Circle = Equals the product of π times the radius squared.

$$A_0 = \pi \times r \times r$$

$$A_0 = \pi r^2$$

$$d = 12''$$

$$A = 3.14 \times 6 \times 6$$

$$A = 113.04 \text{ in}^2$$

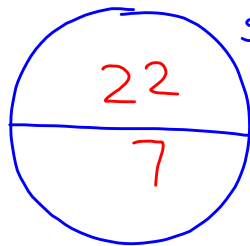
$$r = 4 \text{ ft} \quad \pi \times r \times r$$

$$3 \times 4 \times 4$$

$$\text{Estimate} = @ 48 \text{ ft}^2$$

$$\text{Actual} = 50.24 \text{ ft}^2$$

Pi is a ratio that says the Circumf.



is about 3 times larger than the diameter

C _____

D _____

$$D = 10 \text{ m} \quad r = 5$$

$$\text{Estimate} @ 75 \text{ m}^2$$

$$\text{Actual} \quad 78.5 \text{ m}^2$$

$$d = 7\sqrt{2}$$

says 7 times the
Square root of
Two.

$$d = 7 \times 1.414213562$$

$$d = 9.90$$

$$r = 4.95 \text{ cm}$$

$$A_{\odot} = 3.14 \times 4.95 \times 4.95$$

$$A = 76.94 \text{ cm}^2$$

...

$$D = 10''$$

$$\Sigma_{ST} \quad 3 \times 5 \times 5$$

$$75 \text{ in}^2$$

$$A_{ct} \quad 3.14 \times 25$$

$$78.5 \text{ in}^2$$

Homework.
Textbook pg 415+416

$$\#25.) r = 5.2$$

$$A = 3.14 \times 5.2 \times 5.2$$

$$26.) d = 7.8 \text{ in}$$

$$A = 3.14 \times 3.9 \times 3.9$$

$$28.) r = \frac{3}{4}$$

$$A = 3.14 \times \frac{3}{4} \times \frac{3}{4}$$

$$A = 3.14 \times .75 \times .75$$

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