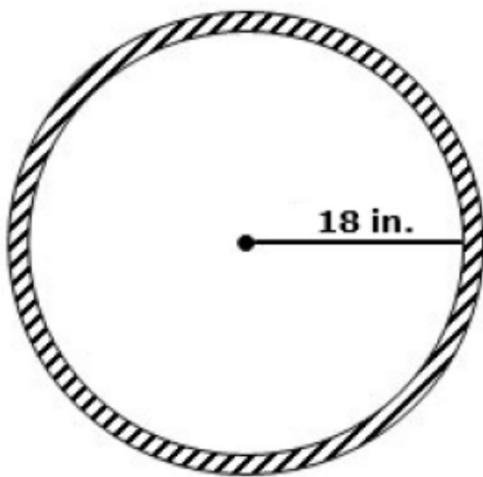


A paper plate has a diameter of 9 inches.  
What measure is **CLOSEST** to the area of the plate?

- A. 12.1 square inches
- B. 63.6 square inches
- C. 127.2 square inches
- D. 254.3 square inches

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The inner ring of a hula hoop has a radius of 18 inches. Which expression can be used to find its circumference,  $C$ , in inches?



- A.  $C = 18 \times \pi$
- B.  $C = (18)^2 \times \pi$
- C.  $C = 2 \times (18)^2 \times \pi$
- D.  $C = 2 \times 18 \times \pi$

Name: \_\_\_\_\_  
7.G.4

Date: \_\_\_\_\_

A 1. What is the radius, in centimeters, of a circle that has a circumference of  $16\pi$  centimeters? (2015)

$$d = 16$$
$$r = 8$$

- A. 8                      B. 16                      C. 32                      D. 64

B 2. The mean radius of Earth is 6,371.0 kilometers and the mean radius of Earth's Moon is 1,737.5 kilometers. What is the approximate difference in the mean circumferences, in kilometers, of Earth and Earth's Moon? Round your answer to the nearest tenth of a kilometer. (2015)

$$C = 2\pi r$$
$$12742\pi - 3475\pi$$

- A. 40,030.2                      B. 29,113.1                      C. 14,556.6                      D. 10,917.0

B 3. Kiyo used wire fencing to form a border around a circular region in his back yard. If the radius of the circular region was 5 yards, what was the total length of the border, rounded to the nearest tenth of a yard? (2017)

$$C = 2\pi r$$

- A. 15.7                      B. 31.4                      C. 78.5                      D. 157.1

B 4. A circle has a diameter of 26 units. What is the area of the circle to the nearest hundredth of a square unit? (2017)

$$r = 13$$

$$A = \frac{\pi r^2}{1} = \pi (13)^2 (13)$$

- A. 81.68                      B. 530.93                      C. 2,123.72                      D. 8,494.87

C 5. The circumference of a circle is  $15\pi$  centimeters. What is the area of the circle in terms of  $\pi$ . (2018)

$$r = 7.5$$

$$A = (7.5)^2 (7.5) \pi$$

- A.  $7.5\pi \text{ cm}^2$                       B.  $15\pi \text{ cm}^2$                       C.  $56.25\pi \text{ cm}^2$                       D.  $225\pi \text{ cm}^2$

6. The circumference of a circle is  $11\pi$  inches. What is the area, in square inches, of the circle? Express your answer in terms of  $\pi$ . (2014)

Show your work.

$$r = 5.5$$

$$A = \pi r^2$$

$$A = \pi (5.5)(5.5)$$

Answer  $30.25\pi$  square inches

7. A contractor is building the base of a circular fountain. On the blueprint, the base of the fountain has a diameter of 18 centimeters. The blueprint has a scale of three centimeters to four feet. What will be the actual area of the base of the fountain, in square feet, after it is built? Round your answer to the nearest tenth of a square foot. (2016)

Show your work

Answer 452.4 square feet

7.G.1

- A 1. The scale of a model train is 1 inch to 13.5 feet. One of the cars of the model train is 5 inches long. What is the length, in feet, of the actual train car? (2014)

$$\frac{\text{in}}{\text{ft}} = \frac{1}{13.5} = \frac{5}{x}$$

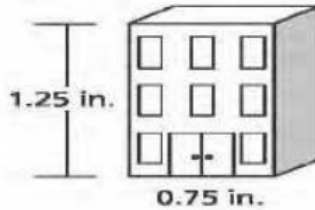
$$1x = 5(13.5)$$

$$x = 67.5$$

- A. 67.5      B. 32.4      C. 14.5      D. 2.7

- C 2. The drawing of a building, shown below, has a scale of 1 inch to 30 feet. (2016)

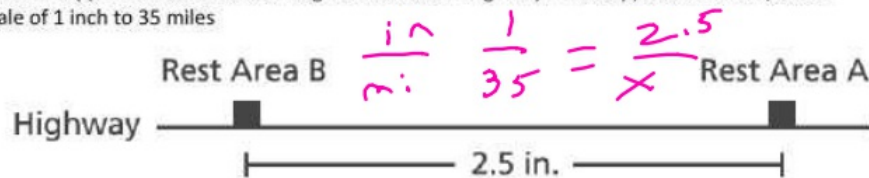
$$\frac{\text{in}}{\text{ft}} \quad \frac{1}{30} = \frac{1.25}{x}$$



What is the actual height, in feet, of the building? (No calculator)

- A. 22.5      B. 24      C. 37.5      D. 40

- D 3. Jensen stopped at a rest area A along the side of the highway. His map, shown below, has a scale of 1 inch to 35 miles



Jensen planned to stop at rest area B next. What is the actual distance, in miles, between the two rest areas? (2017) no calculator

- A. 14.0      B. 37.5      C. 70.5      D. 87.5

- D 4. In a scale drawing of an apartment, 1 centimeter represents  $2\frac{3}{4}$  feet. If the length of the kitchen is  $4\frac{1}{2}$  cm on the scale drawing, what is the actual length, in feet, of the kitchen?

$$\frac{\text{cm}}{\text{ft}} \quad \frac{1}{2.75} = \frac{4.5}{x} \quad (2017)$$

- A.  $6\frac{2}{3}$       B.  $7\frac{1}{4}$       C.  $8\frac{3}{8}$       D.  $12\frac{3}{8}$

- D 5. Howard has a scale model of the Statue of Liberty. (2018)

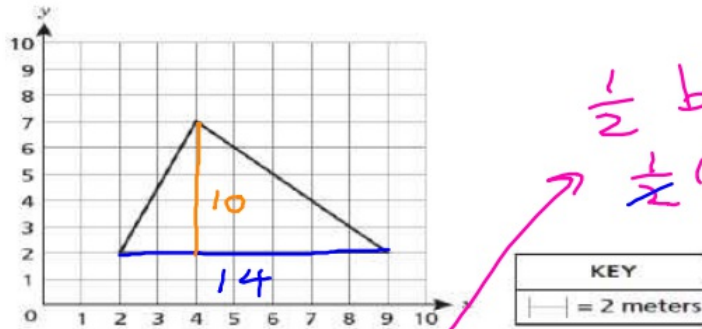
- The model is 15 inches tall.
- The scale of the model to the actual statue is 1 inch : 6.2 meters.

$$\frac{\text{in}}{\text{meters}} \quad \frac{1}{6.2} = \frac{15}{x}$$

Which equation can Howard use to determine  $x$ , the height in meters, of the Statue of Liberty?

- A.  $15x = 6.2$       B.  $6.2x = 15$       C.  $\frac{1}{6.2} = \frac{x}{15}$       D.  $\frac{1}{6.2} = \frac{15}{x}$

D 6. The scale drawing of a field in the shape of a triangle is shown below. (2017)



$$\frac{1}{2} b h$$

$$\frac{1}{2} (14) (10)$$

What is the actual area, in square meters, of this field?

- A. 8.75      B. 17.5      C. 35      D. 70

7. The regular floor of a classroom is 36 feet in length and 32 feet in width. A scale drawing of the floor has a length of 9 inches. What is the area, in square inches, of the floor in the scale drawing? (2018)

Show your work

$$\begin{array}{l} \text{L} \\ 36 \text{ Ft} \\ \div 4 \rightarrow 9 \text{ in} \end{array} \quad \begin{array}{l} \text{W} \\ 32 \text{ Ft} \\ \div 4 \rightarrow 8 \text{ in} \end{array} \quad \begin{array}{l} A = L W \\ A = 9 (8) \end{array}$$

Answer 72 square inches