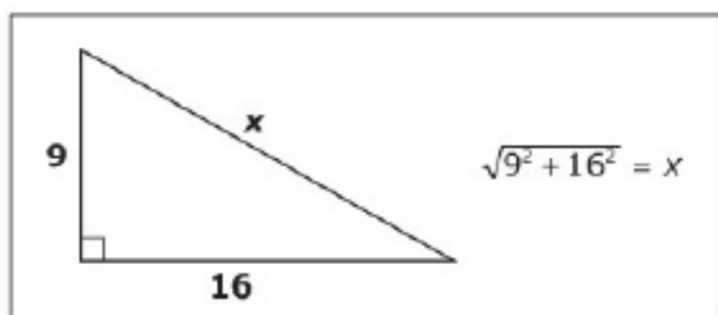


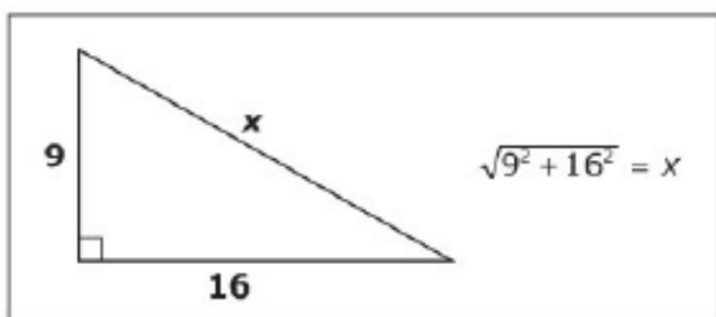
- 6 A student used the triangle and equation shown to find x , the missing side length.



Which equation shows the correct result of the first step?

- A. $\sqrt{81 + 256} = x$
- B. $\sqrt{18 + 32} = x$
- C. $9 + 16 = x$
- D. $\sqrt{25^2} = x$

- 6 A student used the triangle and equation shown to find x , the missing side length.



Which equation shows the correct result of the first step?

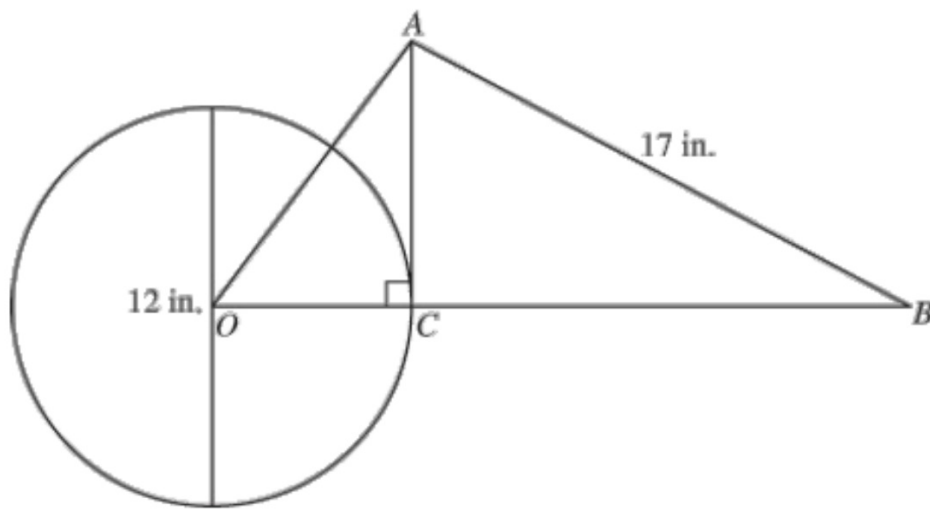
A $\sqrt{81 + 256} = x$

~~B $\sqrt{18 + 32} = x$~~

~~C $9 + 16 = x$~~

~~D $\sqrt{25^2} = x$~~

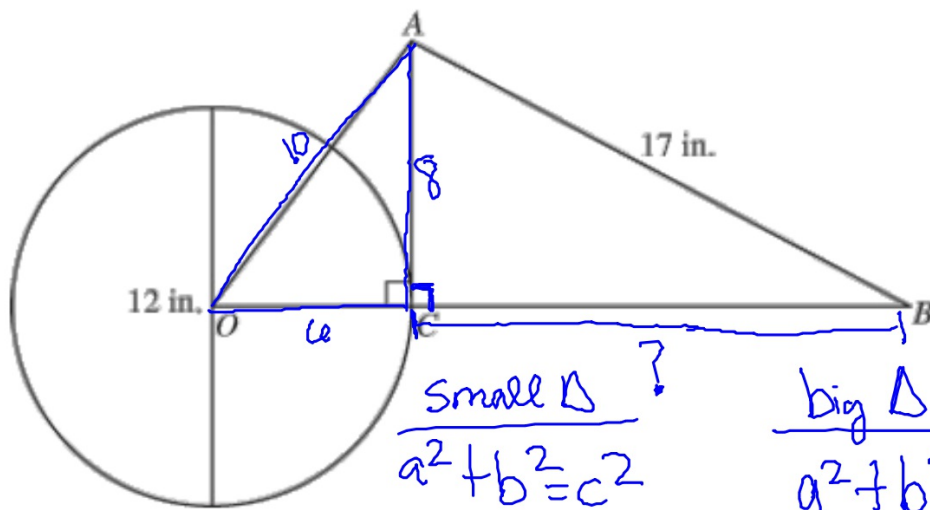
7. Triangle AOC intersects a circle with center O . Side AO is 10 inches (in.) and the diameter of the circle is 12 in., as shown below.



What is the length of \overline{BC} ?

- A. 10 inches
- B. 14 inches
- C. 15 inches
- D. 16 inches

7. Triangle AOC intersects a circle with center O. Side AO is 10 inches (in.) and the diameter of the circle is 12 in., as shown below.



What is the length of \overline{BC} ?

- A. 10 inches
- B. 14 inches
- C. 15 inches
- D. 16 inches

small Δ ?

$$a^2 + b^2 = c^2$$

$$a^2 + 6^2 = 10^2$$

$$a^2 + 36 = 100$$

$$a^2 = 64$$

$$\sqrt{a^2} = \sqrt{64}$$

$$a = 8$$

big Δ

$$a^2 + b^2 = c^2$$

$$a^2 + 8^2 = 17^2$$

$$a^2 + 64 = 289$$

$$a^2 = 225$$

$$\sqrt{a^2} = \sqrt{225}$$

$$a = 15$$

8. Which set of measurements could be the side lengths of a right triangle?
- A. {3 in., 5 in., 7 in.}
 - B. {6 in., 9 in., 12 in.}
 - C. {8 in., 15 in., 17 in.}
 - D. {10 in., 20 in., 30 in.}

8. Which set of measurements could be the side lengths of a right triangle?

- A. {3 in., 5 in., 7 in.} $3^2 + 5^2 \stackrel{?}{=} 7^2$ $9 + 25 \stackrel{?}{=} 49$ $34 \neq 49$
- B. {6 in., 9 in., 12 in.} $6^2 + 9^2 = 12^2$ $36 + 81 = 144$ $117 \neq 144$
- C. {8 in., 15 in., 17 in.} $8^2 + 15^2 = 17^2$ $64 + 225 = 289$ $289 = 289$
- D. {10 in., 20 in., 30 in.}

9.

The shortest side of a right triangle is 7.2 centimeters long and the longest side is 15.5 centimeters long. What is the length, to the nearest tenth of a centimeter, of the third side?

- A. 8.3 cm
- B. 11.4 cm
- C. 13.7 cm
- D. 17.1 cm

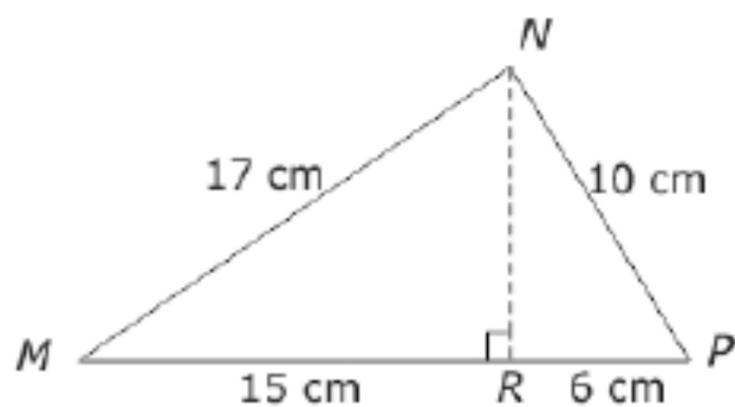
9.

The shortest side of a right triangle is 7.2 centimeters long and the longest side is 15.5 centimeters long. What is the length, to the nearest tenth of a centimeter, of the third side?

- A. 8.3 cm
- B. 11.4 cm
- C. 13.7 cm
- D. 17.1 cm

$$\begin{aligned}a^2 + b^2 &= c^2 \\a^2 + 7.2^2 &= 15.5^2 \\a^2 + 51.84 &= 240.25 \\a^2 &= 188.41 \\\sqrt{a^2} &= \sqrt{188.41} \\a &= 13.72\end{aligned}$$

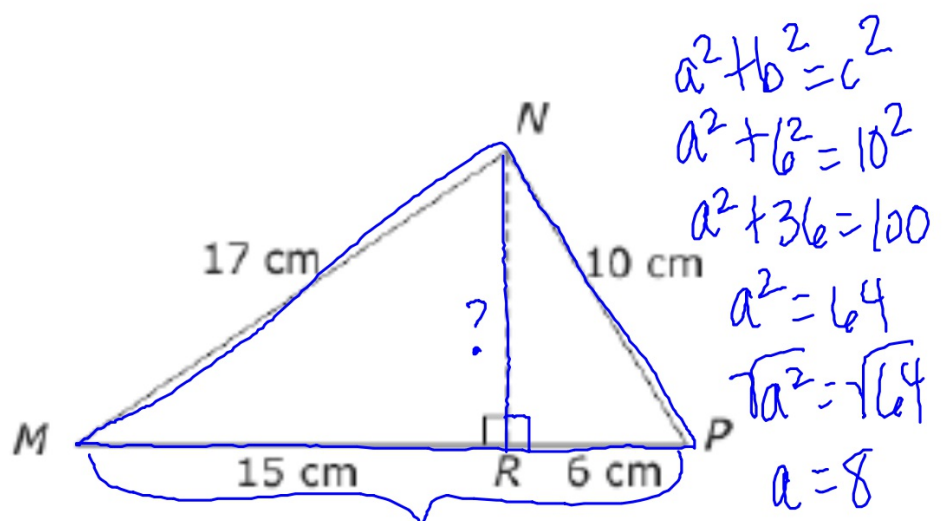
10. In the figure below is $\triangle MNP$.



What is the area of $\triangle MNP$?

- A. 84 cm^2
- B. 105 cm^2
- C. 158 cm^2
- D. 168 cm^2

10. In the figure below is $\triangle MNP$.

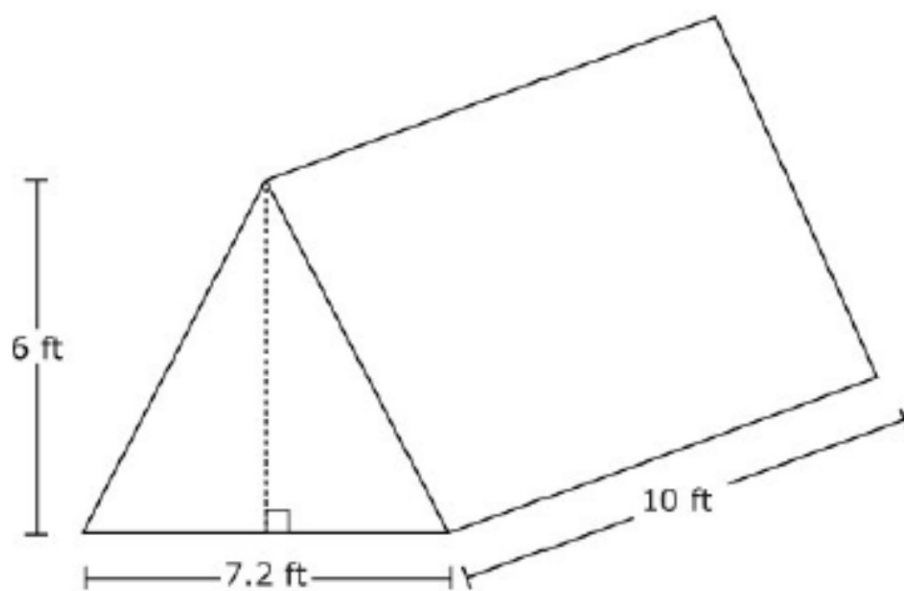


What is the area of $\triangle MNP$?

- A. 84 cm²
- B. 105 cm²
- C. 158 cm²
- D. 168 cm²

$$A = \frac{1}{2}bh$$
$$A = \frac{1}{2}(21)(8)$$
$$A = 84 \text{ cm}^2$$

11. A tent is shaped like an isosceles triangular prism with the dimensions shown. What is the total surface area, to the nearest tenth of a square foot, of the tent, including the ground floor?



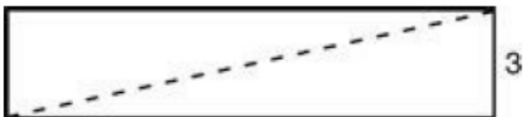
- A. 177.2 ft^2
- B. 211.2 ft^2
- C. 255.1 ft^2
- D. 302.6 ft^2

cket out the door.

The perimeter of the rectangle is 36 centimeters.

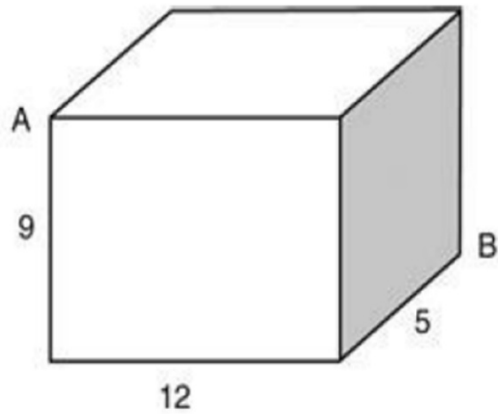
2)

The figure is a rectangular prism.



What is the length of the diagonal?

- A. $\sqrt{108}$ centimeters
- B. $\sqrt{144}$ centimeters
- C. $\sqrt{216}$ centimeters
- D. $\sqrt{234}$ centimeters



Note: The figure is not drawn to scale.

What is the length of the diagonal from Point A to F

Round to the nearest tenth.

