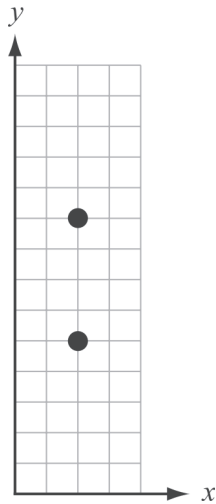


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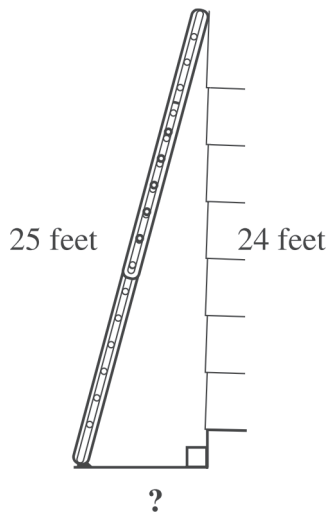
1. There are 2 restaurants in River City located at map points (2, 5) and (2, 9).



Ben is building a new restaurant located halfway between the existing restaurants. What is the location of Ben's restaurant?

- A. (2, 13)    B. (2, 7)    C. (2, 4)    D. (2, 1)

2. The diagram below shows the placement of a ladder against Cheri's house.

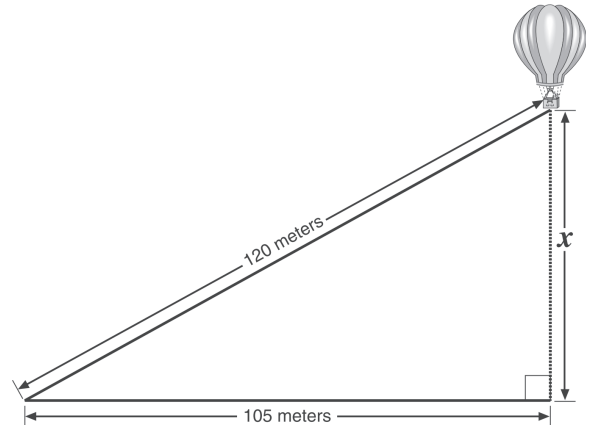


The ladder needs to lean against the house at a height of 24 feet. How far should Cheri place the base of the ladder from her house?

- A. 1 foot    B. 7 feet    C. 35 feet    D. 49 feet

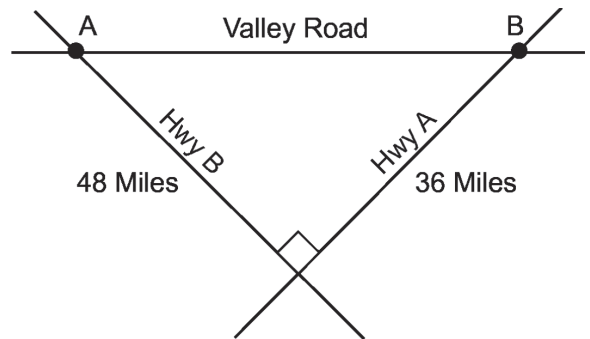
3. **Hot Air Balloon**

The diagram shows a hot-air balloon tied to the ground by a rope.



To the nearest meter, what is  $x$ , the distance from the balloon to the ground?

4. To go from Point A to Point B, Malia could travel along 2 main highways or take the direct route along Valley Road.



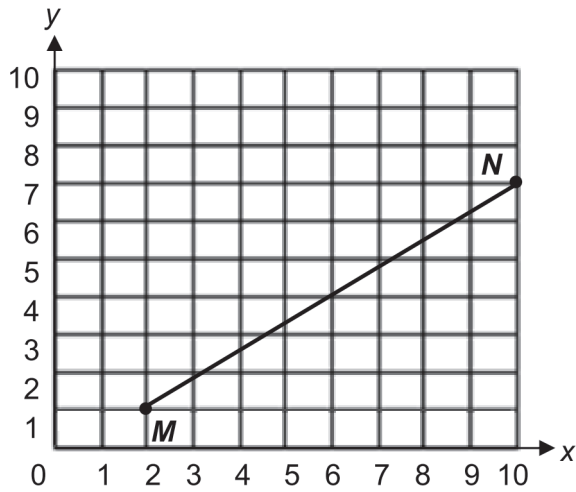
How many miles long is the route along Valley Road?

- A. 12 miles    B. 24 miles    C. 36 miles    D. 60 miles

5. A right cylinder has a height of 12 inches and a diameter of 10 inches. What is its volume in terms of  $\pi$ ?

- A.  $120\pi$  cubic inches    B.  $300\pi$  cubic inches  
C.  $480\pi$  cubic inches    D.  $1200\pi$  cubic inches

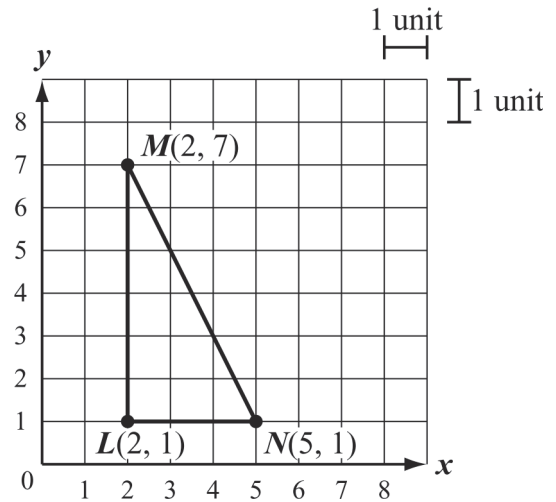
6. Look at  $\overline{MN}$  on the coordinate plane.



What is the distance between the endpoints of  $\overline{MN}$ ?

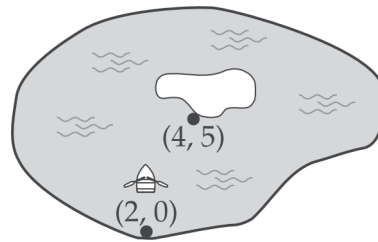
- A. 5 units    B. 6 units    C. 8 units    D. 10 units
7. Segment  $QR$  has endpoints at  $(-1, -2)$  and  $(2, 2)$ . What is the distance between these two endpoints?
- A. 3 units    B. 4 units    C. 5 units    D. 6 units
8. What is the distance between the points  $(4, -2)$  and  $(-5, 3)$ ?
- A.  $D = \sqrt{106}$                       B.  $D = \sqrt{28}$   
 C.  $D = \sqrt{26}$                         D.  $D = \sqrt{2}$
9.  $\overline{AB}$  has one endpoint at  $A(2, 5)$ , and its midpoint is at  $(4, 0)$ . What are the coordinates of  $B$ , the other endpoint of  $\overline{AB}$ ?
- A.  $(2, -5)$     B.  $(3, 2.5)$     C.  $(6, -5)$     D.  $(6, 2.5)$
10. What is the midpoint of the line segment joining points  $(3, 5)$  and  $(-6, 1)$ ?
- A.  $(-4.5, 3)$     B.  $(-3, 6)$     C.  $(-1.5, 3)$     D.  $(1.5, 2)$

11. Right triangle  $LMN$  is shown on the coordinate grid below.



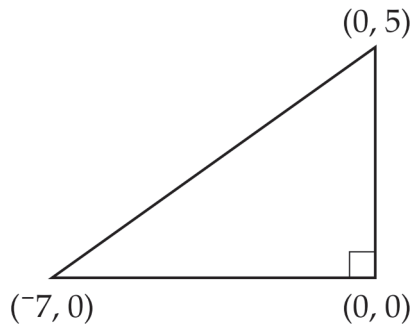
Which of the following is the length, in units, of line segment  $MN$ ?

- A.  $18^2$     B.  $\sqrt{18}$     C.  $45^2$     D.  $\sqrt{45}$
12. A lake is shown below. An island is located at  $(4, 5)$ . A boat travels in a straight line from  $(2, 0)$  to the island.



How far does the boat travel? Round the answer to the nearest tenth of a unit.

- A. 3.3 units    B. 3.7 units    C. 5.4 units    D. 7.8 units
13. Look at the triangle below.

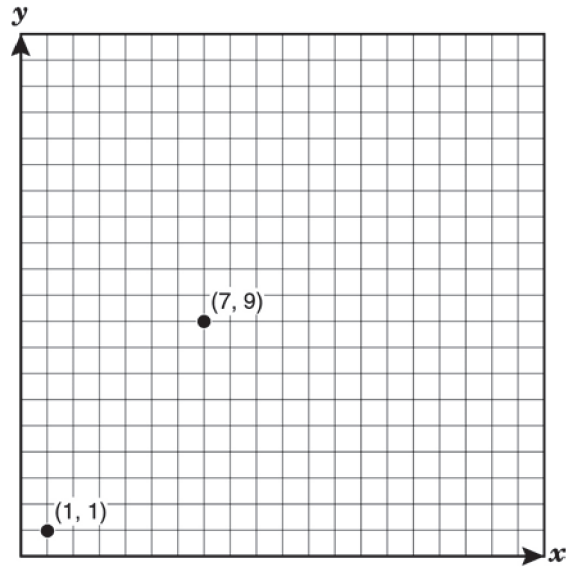


What is the perimeter of the triangle? Round the answer to the nearest tenth of a unit.

- A. 9.3 units                      B. 12.0 units  
 C. 20.6 units                    D. 86.0 units

14. A small plane needs to refuel approximately halfway to its destination. It takes off from its base located at  $(7, -2)$ , on a coordinate grid and its destination is located at  $(-3, 6)$ . Which of the following locations is closest to halfway?
- A.  $(2.2, 2)$     B.  $(2.5, 1.5)$     C.  $(4, 1.5)$     D.  $(5, -4.5)$

15. The plans for a new amusement park were laid out on the first quadrant of a coordinate plane. The entrance to the roller coaster was shown at  $(1, 1)$ , and the entrance to the bumper cars was shown at  $(7, 9)$ .



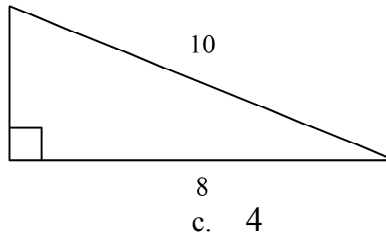
If each unit on the grid represents 70 meters, how far apart will the 2 entrances be?

- A. 1400 m    B. 980 m    C. 700 m    D. 490 m

**Review Geometry Test****Multiple Choice**

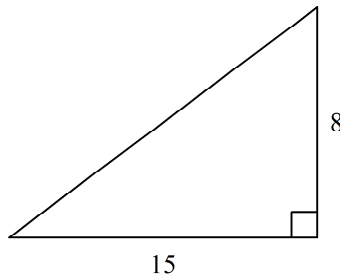
Identify the choice that best completes the statement or answers the question.

\_\_\_\_ 16. Find the missing length.



- a. 36                      b. 13                      c. 4                      d. 6

\_\_\_\_ 17. Find the missing length.



- a. 120                      b. 46                      c. 17                      d. 289

**Find the missing length. Round to the nearest tenth, if necessary.**

\_\_\_\_ 18. the hypotenuse of a right triangle with legs of 5 and 13

- a. 13.9                      c. 12  
b. 25                      d. 169

\_\_\_\_ 19. A cable 16 m long runs from the top of a utility pole to a point on the ground 4 m from the base of the pole. How tall is the utility pole, to the nearest tenth?

- a. 15.5 m                      c. 16.5 m  
b. 256 m                      d. 16 m

\_\_\_\_ 20. Find the distance between points  $P(8, 2)$  and  $Q(3, 8)$  to the nearest tenth.

- a. 11                      b. 7.8                      c. 61                      d. 14.9