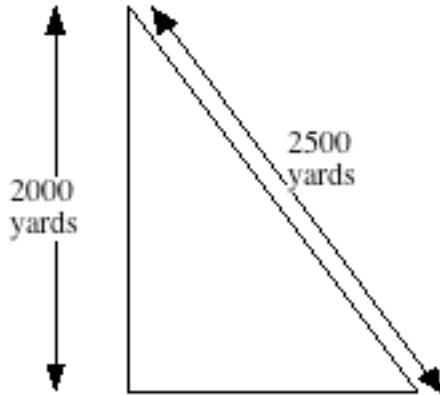**PRACTICE EXERCISES**

1. Plato exercises by walking laps around a circular track that is 200 feet in diameter. If he walks 20 laps, approximately how far will he have walked

A. 2.4 miles   B. 119 miles   C. 5.9 miles   D. 11.8 miles

2.

The diagram at left shows a triangular parcel of property that will be enclosed by a fence. If the fence material costs $10 per foot, how much will this cost?

A. $60,000
B. $45,000
C. $15,000
D. $180,000

3. Two boats leave the dock at 12:00 noon, one of them moving northward at 6 miles per hour, and the other moving westward at 8 mph. How far apart are the boats after 2 hours?

A. 20 miles   B.   28 miles   C. 10 miles   D. 14 miles

4. The diagram below shows one exterior wall of a house. The wall has a door that measures 3 ft. by 7 feet, and three windows which each measure 4 ft. by 4 ft. What is the perimeter of the door opening?
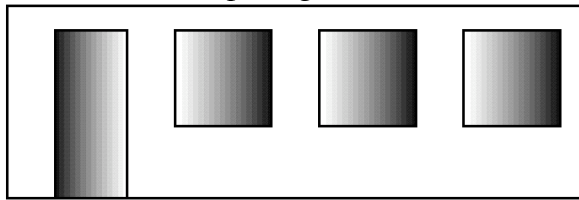

A. 53 inches   B. 65 inches   C. 240 inches   D. 4.42 inches

5. The diagram below shows Aristotle's stroll. He starts at his home, proceeds to the cheese shop, then to the toga store, and then returns home. What is the total distance (in feet) of his journey?
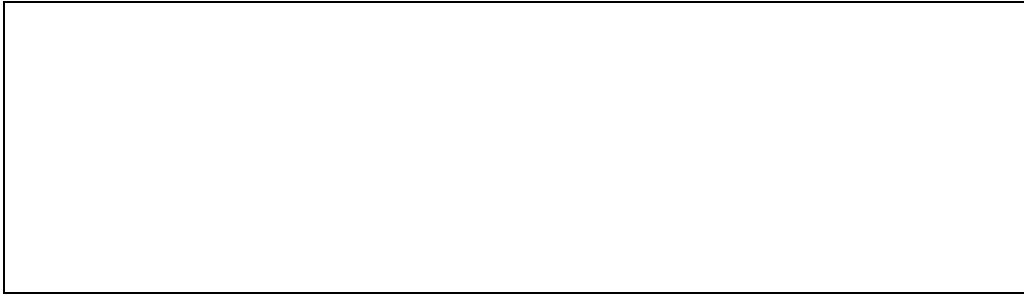
6. The figure below shows the parcel of land on which Homer the rancher confines his hippos. The parcel will be enclosed by a fence, at a cost of $1.5 per meter. Find the total cost.
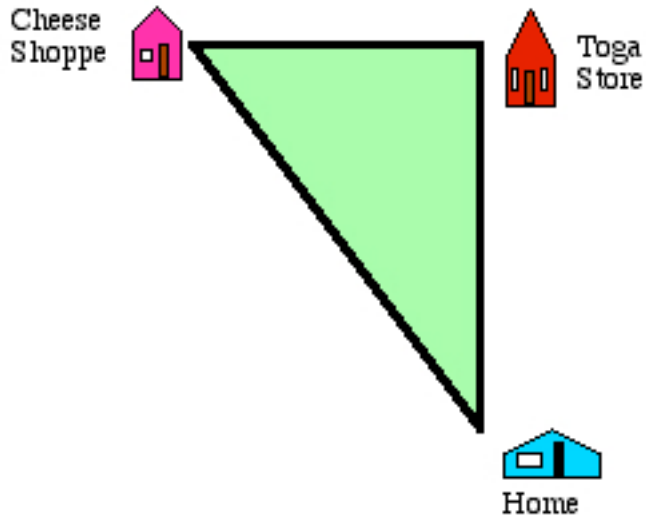
12.5 m

50 m

12.5 m

50 m
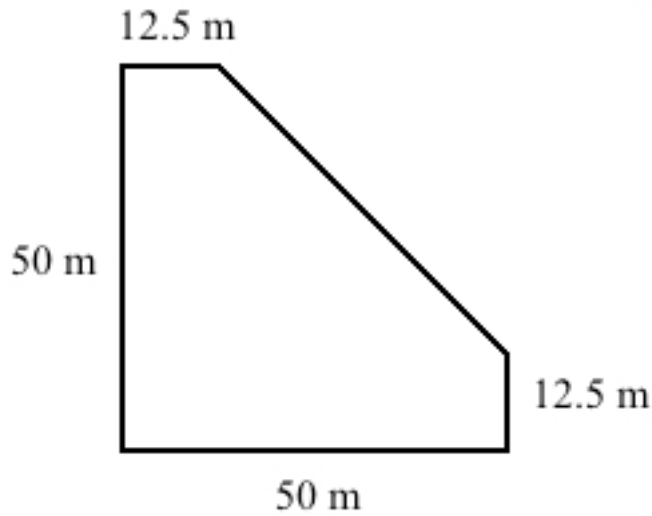
A. $67.60   B. $214.02   C. $267.05   D. $187.50

7. Study the figure below. The distance from the Cheese Shoppe to Diogenes's home is 1575 feet, and the distance from the Toga Store to the Cheese Shoppe is 945 feet.

Find the distance from the Toga Store to Diogenes's home.

A. 1837 feet   B. 3780 feet   C. 1260 feet   D. 630 feet

8. Study the figure below, which illustrates a dilemma facing the Gainesville City Council. They are going to build a footbridge connecting City Hall to the Municipal Outhouse, because a number of citizens have perished while crossing Big Swamp. The distance from City Hall to the Court House is 1440 feet, and the distance from the Court House to the Municipal Outhouse is 1512 feet.
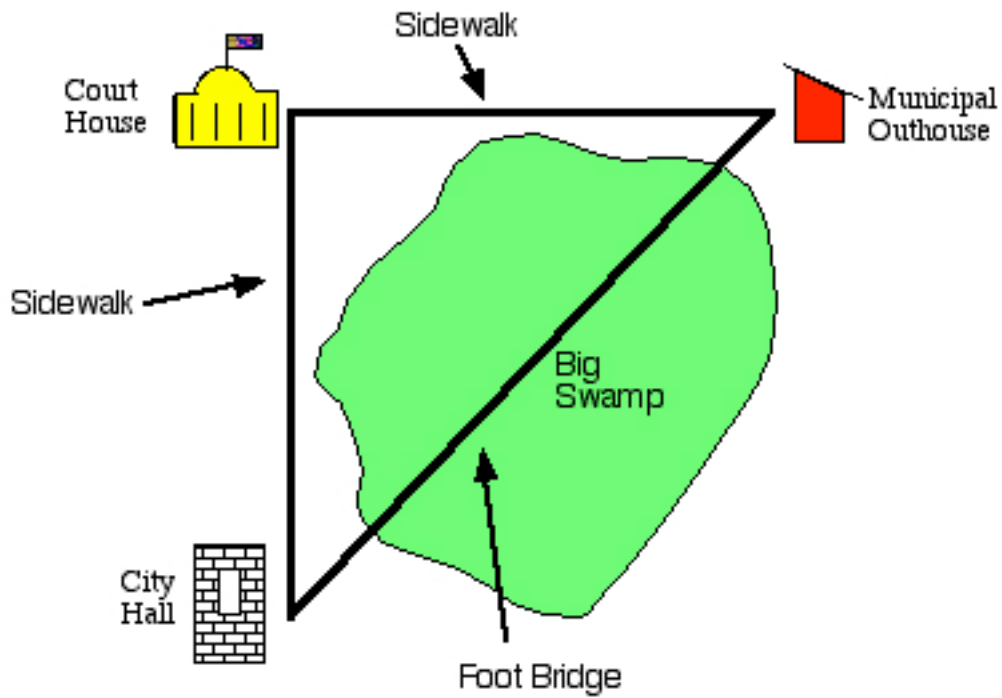
Find the cost of the footbridge, assuming that such a structure costs $21 per foot.

**A. $43848**   **B. $54810**   **C. $61992**   **D. $65772**

9. Plato has raised a 91-foot-high flag pole. The flag pole is supported by 5 wires, each of which is attached to the flag pole at a place that is 19 feet from the top of the pole and attached to the ground at a place that is 54 feet from the base of the pole. Find the total length of all 5 wires.
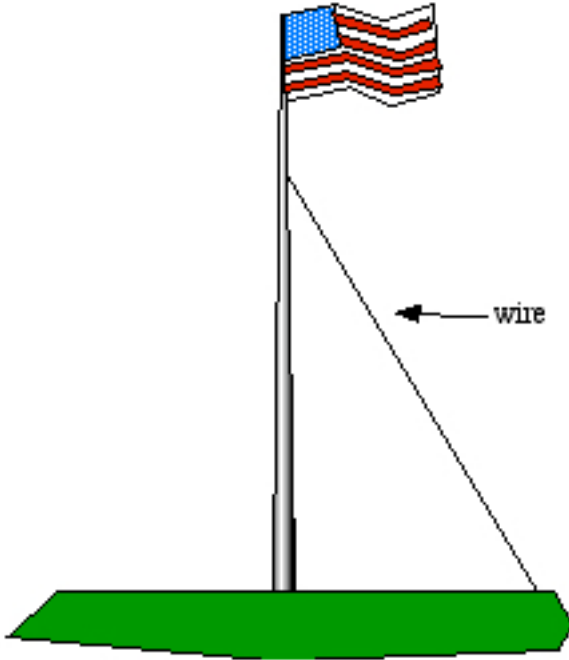

A. 450 feet   B. 225 feet   C. 338 feet   D. 90 feet

10. Study the figure below (which is not drawn to scale). Euclid has spent the afternoon sunbathing at point X on the south bank of the river. However, directly across the river at point Y he sees his buddies drinking beer. He decides to swim across to where they are, but the swift current carries him downstream so that he arrives at point Z instead.
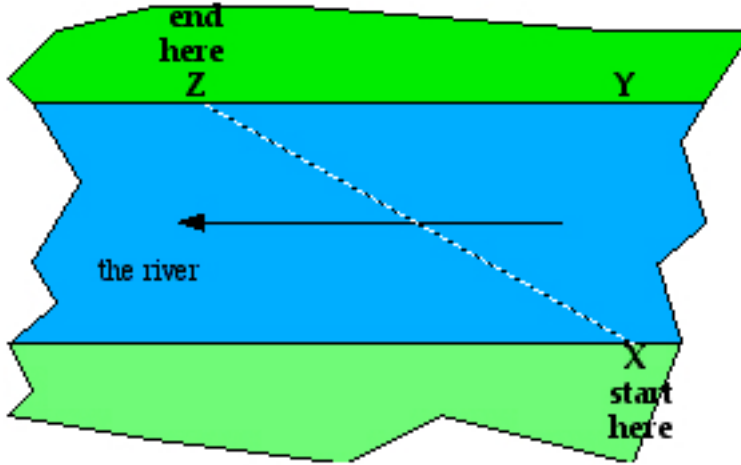
Assuming that the distance from X to Y is 402 feet and the distance from X to Z is 670 feet, how far from his intended destination did Euclid end up?

A. 536 feet   B. 781 feet   C. 668 feet   D. 268 feet

11. Find the distance around the racetrack shown below.

878 feet

391 feet
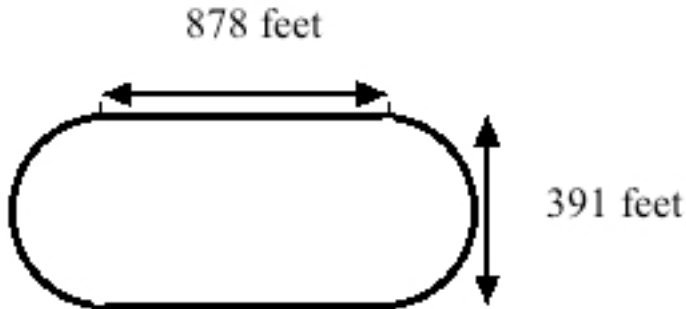
A. 2238.3 feet   B. 105423616.9 feet
C. 1492.2 feet   D. 2984.4 feet

ANSWERS TO LINKED EXAMPLES

EXAMPLE 3.7.3   C
EXAMPLE 3.7.4   A
EXAMPLE 3.7.5   C
EXAMPLE 3.7.6   A
EXAMPLE 3.7.7   About 66,700 miles per hour
EXAMPLE 3.7.9   5 miles

ANSWERS TO PRACTICE EXERCISES

| **1.** A | **2.** D | **3.** A | **4.** C | **5.** B | **6.** C |
| **7.** C | **8.** A | **9.** A | **10.** A | **11.** D | |