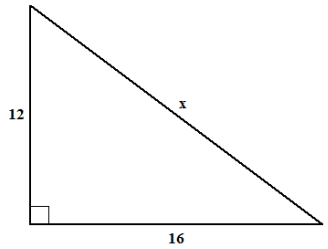
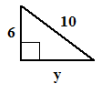
What is the length of the unknown side of the right triangle?



a. 20
b. 19
c. 23
d. 22

What is the length of leg y of the right triangle?



a. 11
b. 7
c. 6
d. 8

The length of the hypotenuse of a right triangle is 30. If the length of one of the legs is 18, what is the aproximate length of the other leg?

a. 23.5
b. 24
c. 22.5
d. 25

The length of the hypotenuse of a right triangle is 102 units. The length of one leg of the triangle is 67. Lara wrote the following step to find the length of the unknown leg:

Length of the unknown leg $= 102^2 - 67^2 = 10,404 - 4,489 = 5,915$ units

Which statement best explains whether Lara's step is correct or incorrect?

a. It is correct because the length of the unknown side is the difference of the lengths of the sides.
b. It is incorrect because the length of the unknown side is the square root of 14,893.
c. It is correct because the length of the unknown side is the difference of the squares of the sides.
d. It is incorrect because the length of the unknown side is the square root of 5,915.

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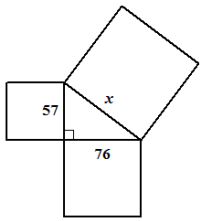
A triangle has squares on its three sides as shown below. If measurements are in inches, what is the length of x?



a. 97 inches
b. 96 inches
c. 92 inches
d. 95 inches

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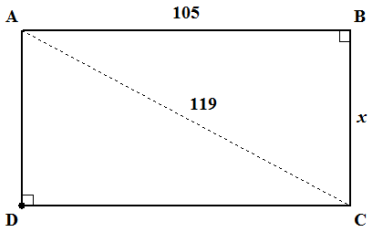
ABCD is a rectangle. If all units are in feet, what is the value of x?



a. 53 feet
b. 58 feet
c. 57 feet
d. 56 feet

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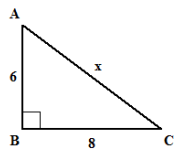
Look at triangle ABC:



What is the length of segment AC?

a. 9
b. 12
c. 10
d. 13

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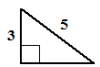
Which of the following shows the length of the third side of the triangle below?



a. 2
b. 4
c. 5
d. 1

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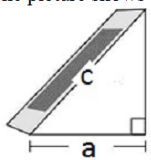
The picture shows a sandwich box:



If the length of **c** is 15 cm and th length of **a** is 10 cm, what is the height of he sandwich box?

a. 11.2 cm
b. 12.2 cm
c. 12.6 cm
d. 10.8 cm

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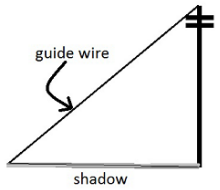
The picture below shows a pole and its shadow and it may not be drawn to scale.



If the shadow is 24 inches and the guide wire is 25 inches, what is the height of the pole in inches?

a. 4 inches
b. 6 inches
c. 9 inches
d. 7 inches

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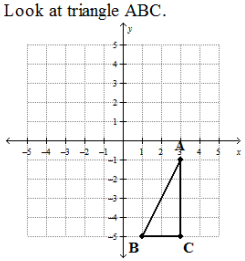
Look at triangle ABC.



What is the length of segment AB of the triangle?

a. $\sqrt{20}$
b. $\sqrt{23}$
c. $\sqrt{22}$
d. $\sqrt{19}$

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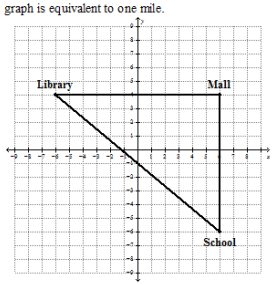
The map shows the location of the mall, library, and school. Each unit on the graph is equivalent to one mile.



Britney traveled from the school to the mall and then from the mall to the library. Alice traveled directly from the school to the library. How many more miles did Britney travel than Alice? The both follwed the paths on the graph. Express your answer rounded to the nearest hundredth.

a. 6.38 miles
b. 7.38 miles
c. 5.88 miles
d. 6.88 miles

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What is the volume of a sphere with a radius of 15 inches?

a. $4,518\pi$ cubic inches
b. $4,500\pi$ cubic inches
c. $4,494\pi$ cubic inches
d. $4,521\pi$ cubic inches

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What is the height of a cone with a volume of 20 cubic inches and a radius of 2 inches. Use 3.14 for pi. Round your answer to the nearest tenth if necessary.

a. 4.8 inches
b. 4.5 inches
c. 4.6 inches
d. 4.9 inches

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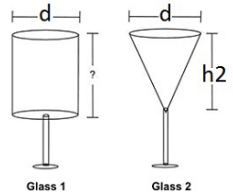
Mona filled the glasses shown below completely with water. The total amount of water that Mona poured into the glasses is 205 cubic centimeters. While their diameters are both 5 cm, their heights may not be the same. If the height of glass two is 7.3 cm, what is the height of glass 1? Round your answer to the nearest tenth. (Use $\pi = 3.14$.)



a. 9 centimeters
b. 6.5 centimeters
c. 8.5 centimeters
d. 8 centimeters

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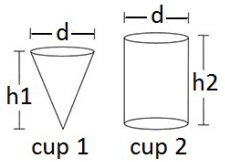
Look at the cups drawn below. Both cups have a diameter of 3 inches. The height of cup one is 4.8 inches, and the height of cup2 is 5.1 inches. The picture may not be drawn to scale. (Use $\pi = 3.14$.)



How many more cubic inches of juice will cup 2 hold than cup 1 when both are completely full? Round your answer to the nearest tenth if necessary.

a. 26.2 cubic inches
b. 25.2 cubic inches
c. 24.7 cubic inches
d. 25.7 cubic inches