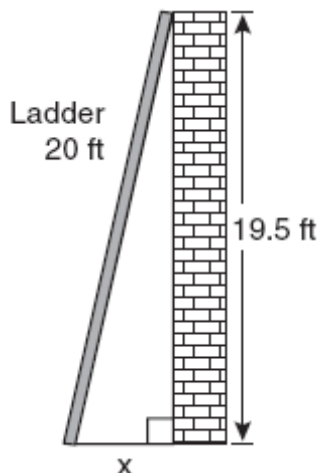


NAME: \_\_\_\_\_

1. 060825ia, P.I. A.A.45

Don placed a ladder against the side of his house as shown in the diagram below.



Which equation could be used to find the distance,  $x$ , from the foot of the ladder to the base of the house?

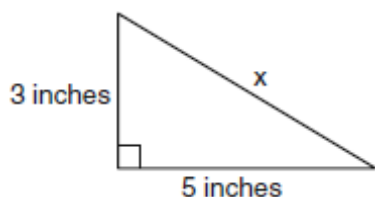
[A]  $x = \sqrt{20^2 - 19.5^2}$

[B]  $x = \sqrt{20^2 + 19.5^2}$

[C]  $x = 20^2 - 19.5^2$       [D]  $x = 20 - 19.5$

2. 060909ia, P.I. A.A.45

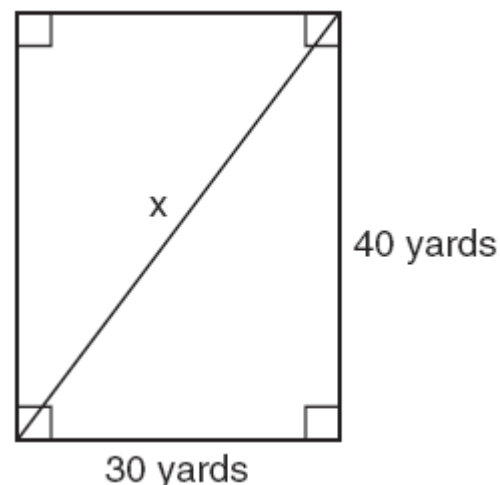
What is the value of  $x$ , in inches, in the right triangle below?



[A]  $\sqrt{15}$       [B]  $\sqrt{34}$       [C] 8      [D] 4

3. fall0711ia, P.I. A.A.45

Tanya runs diagonally across a rectangular field that has a length of 40 yards and a width of 30 yards, as shown in the diagram below.

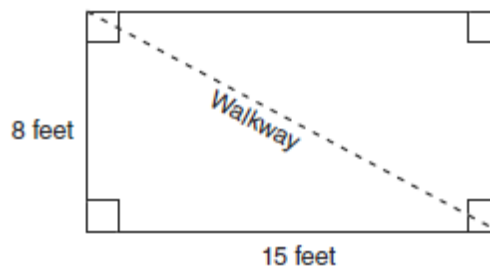


What is the length of the diagonal, in yards, that Tanya runs?

[A] 80      [B] 70      [C] 60      [D] 50

4. 080906ia, P.I. A.A.45

Nancy's rectangular garden is represented in the diagram below.



If a diagonal walkway crosses her garden, what is its length, in feet?

[A] 17      [B] 22      [C]  $\sqrt{161}$       [D]  $\sqrt{529}$

5. 080809ia, P.I. A.A.45

The length of the hypotenuse of a right triangle is 34 inches and the length of one of its legs is 16 inches. What is the length, in inches, of the other leg of this right triangle?

[A] 16      [B] 25      [C] 30      [D] 18

[1] A

[2] B

[3] D

[4] A

[5] C