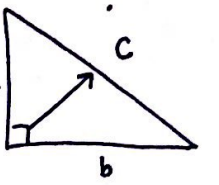
Geometry CLASSWORK October 28, 2019

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

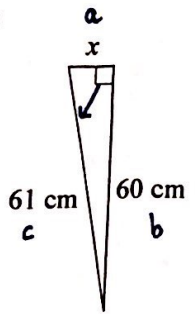
$(leg)^2 + (leg)^2 = (hypotenuse)^2$



Pythagorean Theorem

Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.

1)



$x^2 + 60^2 = 61^2$

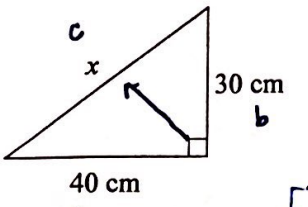
$x^2 + 3600 = 3721$

$-3600 \quad -3600$

$\sqrt{x^2} = \sqrt{121}$

$x = 11$ cm

2)



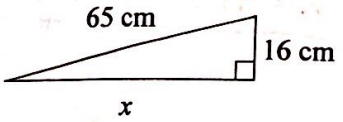
$30^2 + 40^2 = x^2$

$900 + 1600 = x^2$

$\sqrt{2500} = \sqrt{x^2}$

$x = 50$ cm

3)



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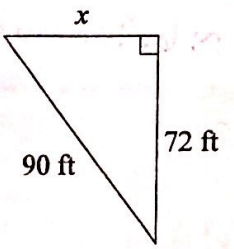

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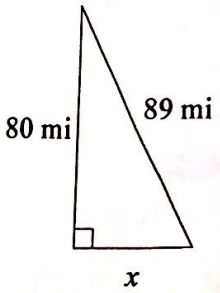

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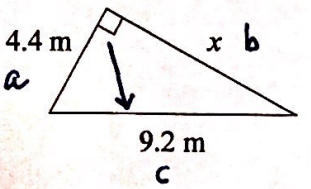


$4.4^2 + x^2 = 9.2^2$

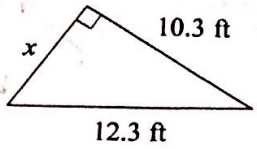
$19.36 + x^2 = 84.64$

$-19.36 \quad -19.36$

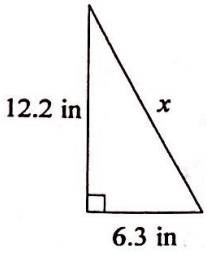
$\sqrt{x^2} = \sqrt{65.28}$

$x \approx 8.1$ m

7)

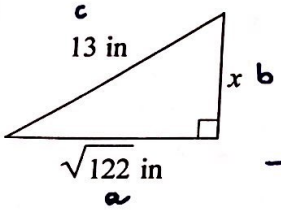


8)



Find the missing side of each triangle. Leave your answers in simplest radical form.

9)



$(\sqrt{122})^2 + x^2 = 13^2$

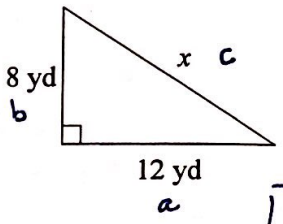
$122 + x^2 = 169$

$-122 \quad -122$

$\sqrt{x^2} = \sqrt{47}$

$x = \sqrt{47} \approx 6.9$ inches

10)



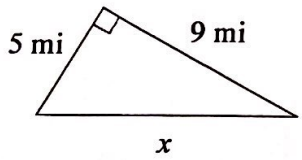
$12^2 + 8^2 = x^2$

$144 + 64 = x^2$

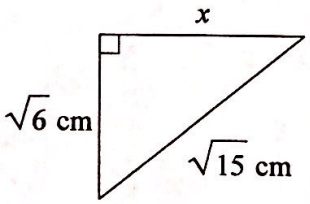
$\sqrt{208} = \sqrt{x^2}$

$x = 4\sqrt{13} \approx 14.4$ yards

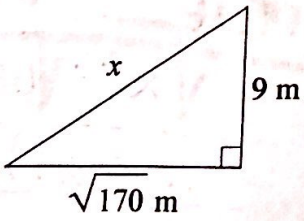
11)



12)



13)



14)