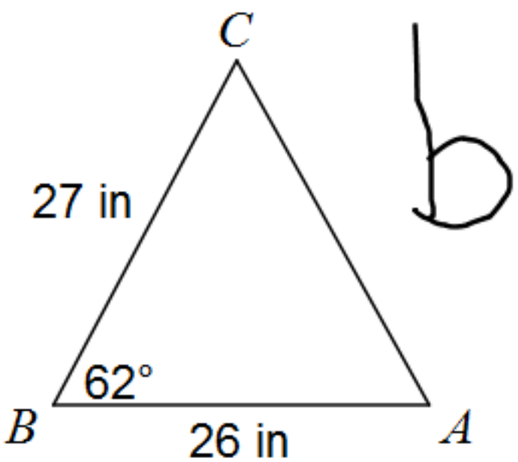
Find each measurement indicated. Round your answers to the nearest tenth.

May 20

6) Find AC



b

$b = 27.3$ in

$b^2 = a^2 + c^2 - 2ac(\cos B)$

$b^2 = (27)^2 + (26)^2 - 2(27)(26)(\cos 62^\circ)$

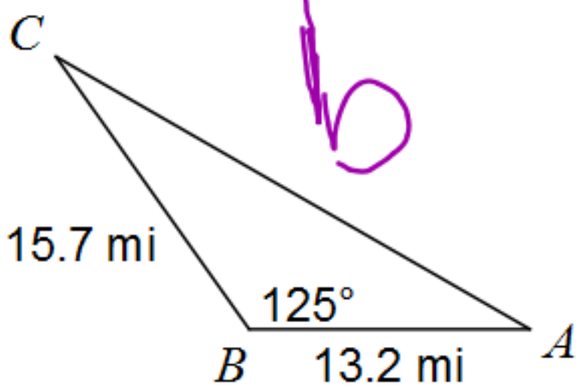
$b^2 = 729 + 676 - 1404(0.4695)$

$b^2 = 1405 - 659.2$

$b = \sqrt{745.8}$

Find each measurement indicated. Round your answers to the nearest tenth.

7) Find AC



$b^2 = a^2 + c^2 - 2ac(\cos B)$

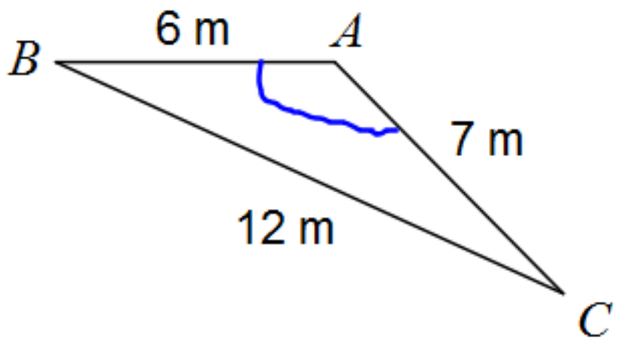
$b^2 = 15.7^2 + 13.2^2 - 2(15.7)(13.2)(\cos 125^\circ)$

$b^2 = 658.5$

$b = 25.7$ mi

Find each measurement indicated. Round your answers to the nearest tenth.

10) Find $m\angle A$



$-0.7024 = \cos A$

$134.6^\circ = A$

$a^2 = b^2 + c^2 - 2bc(\cos A)$

$12^2 = 7^2 + 6^2 - 2(7)(6)(\cos A)$

$144 = 49 + 36 - 84(\cos A)$

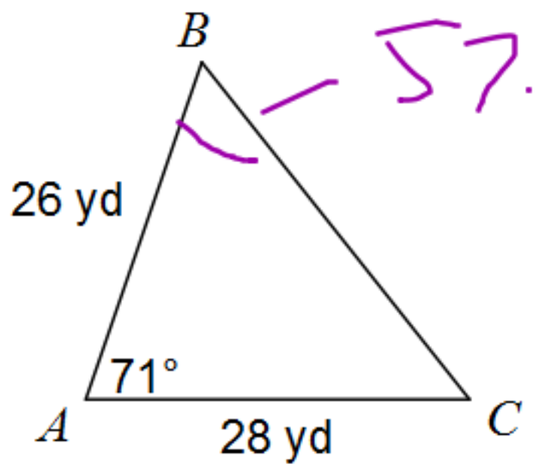
$-85 \quad -85$

$59 = -84(\cos A)$

$\frac{59}{-84} = \frac{-84(\cos A)}{-84}$

Find each measurement indicated. Round your answers to the nearest tenth.

11) Find $m\angle B$



57.5°

$\cos B = \frac{a^2 + c^2 - b^2}{2ac}$

$\cos B = \frac{31.4^2 + 26^2 - 28^2}{2(31.4)(26)}$

$a^2 = b^2 + c^2 - 2bc(\cos A)$

$a^2 = 28^2 + 26^2 - 2(28)(26)(\cos 71^\circ)$

$a^2 = 985.96$

$a = 31.4$

$\cos B = \frac{986 + 676 - 784}{1632.8}$

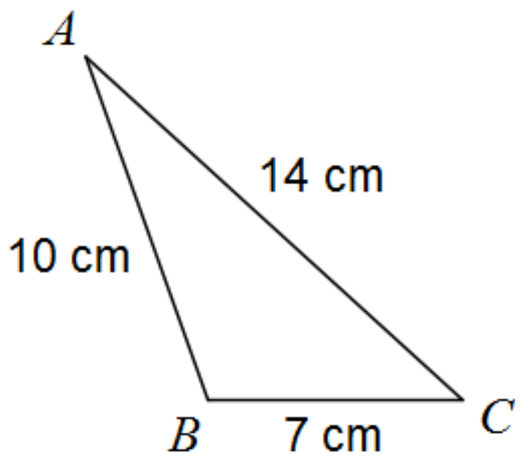
$\cos B = \frac{878}{1632.8}$

$\cos B = 0.5377$

$\angle B = 57.5^\circ$

Find each measurement indicated. Round your answers to the nearest tenth.

12) Find $m\angle A$



$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

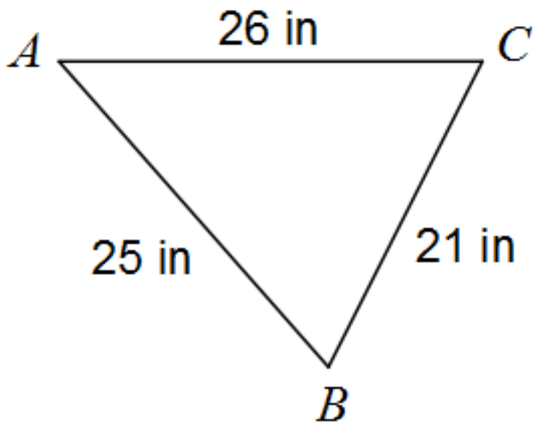
$$\cos A = \frac{14^2 + 10^2 - 7^2}{2(14)(10)}$$

$$\cos A = 0.5521$$

$$A = 28^\circ$$

Find each measurement indicated. Round your answers to the nearest tenth.

13) Find $m\angle A$



$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

$$\cos A = \frac{26^2 + 25^2 - 21^2}{2(26)(25)}$$

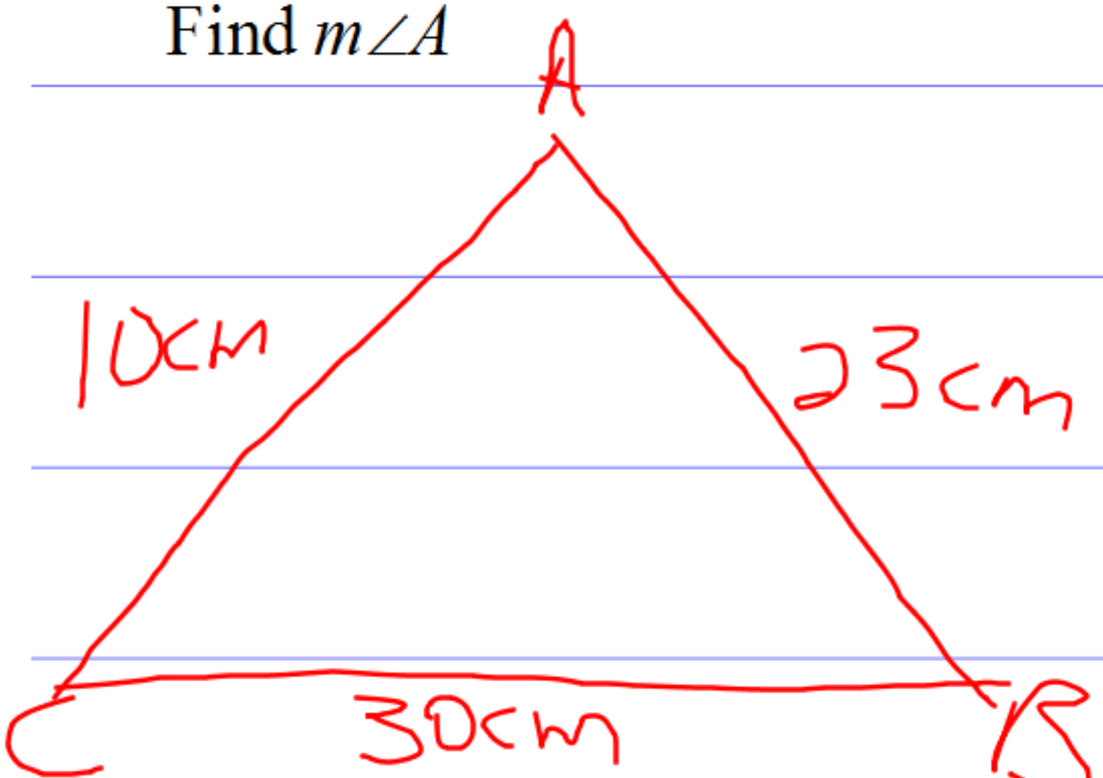
$$\cos A = 0.615$$

$$\cos^{-1} A = 48.6^\circ$$

Do 8, 9

Solve each triangle. Round your answers to the nearest tenth.

14) $a = 30$ cm, $c = 23$ cm, $b = 10$ cm
Find $m\angle A$



$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$

$\cos A = \frac{10^2 + 23^2 - 30^2}{2(10)(23)}$

$\cos A = -0.5891$

$\angle A = 126°$

Hwk: 8, 9, 15, 16