

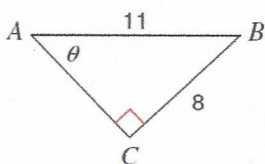
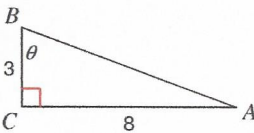
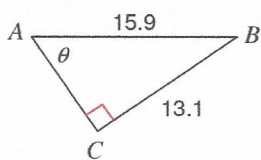
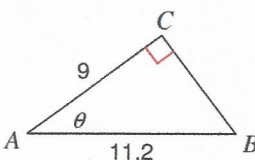
**I. Find the value of angle  $\theta$ . Round to the nearest degree.**

1.)  $\cos \theta = 0.1736 \rightarrow \underline{80^\circ}$       2.)  $\sin \theta = 0.9511 \rightarrow \underline{72^\circ}$       3.)  $\tan \theta = 0.6249 \rightarrow \underline{32^\circ}$

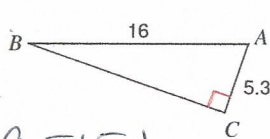
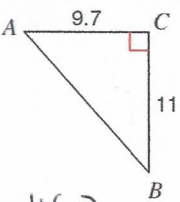
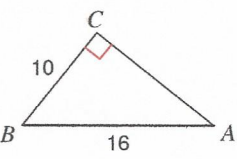
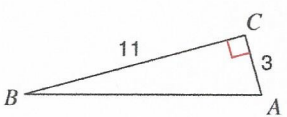
**II. Evaluate the following using the definitions of the inverse trig ratios.**

4.)  $\cos(\arccos \frac{2}{3}) \rightarrow \underline{\frac{2}{3}}$       5.)  $\sin(\tan^{-1} 0) \rightarrow \underline{0}$       6.)  $\tan(\arcsin 1) \rightarrow \underline{\phi}$   
 7.)  $\sin(\sin^{-1} \frac{4}{12}) \rightarrow \underline{\frac{1}{3}}$       8.)  $\cos(\arcsin \frac{\sqrt{3}}{2}) \rightarrow \underline{\frac{1}{2}}$       9.)  $\tan(\cos^{-1} \frac{\sqrt{2}}{2}) \rightarrow \underline{1}$

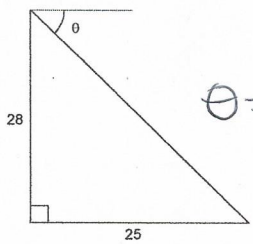
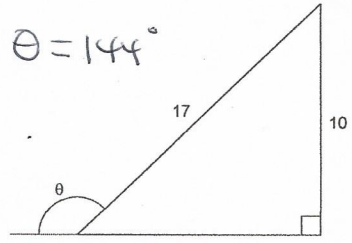
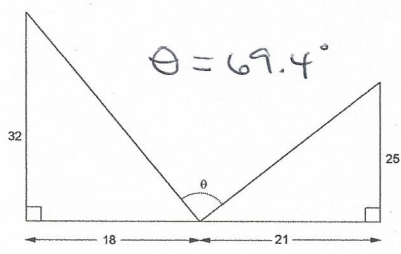
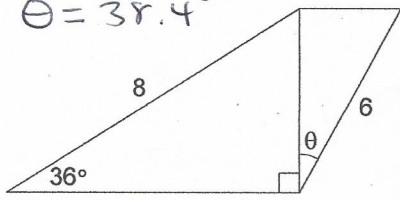
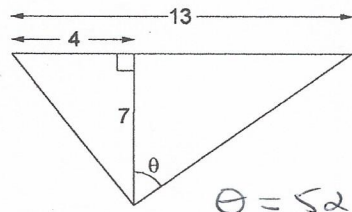
**III. Find the measure of angle  $\theta$  (use the appropriate letter). Round to nearest tenth. Show work!**

10.)  $A = 46.7^\circ$	11.)  $B = 69.4^\circ$	12.)  $A = 55.5^\circ$	13.)  $A = 36.5^\circ$
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**IV. Solve each triangle. Round all answers to nearest tenth. Show all of your work!!**

14.)  $a = 15.1$ $A = 70.7^\circ$ $B = 19.3^\circ$	15.)  $C = 14.7$ $A = 48.6^\circ$ $B = 41.4^\circ$	16.)  $b = 12.5$ $A = 38.7^\circ$ $B = 51.3^\circ$	17.)  $C = 11.4$ $A = 74.7^\circ$ $B = 15.3^\circ$
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**V. Find the measure of angle  $\theta$ . Round to tenth place. Must show work!**

18.)  $\theta = 48.2^\circ$	19.) $\theta = 144^\circ$ 	20.) $\theta = 69.4^\circ$ 
21.) $\theta = 38.4^\circ$ 	22.) $\theta = 52.1^\circ$ 	23.) $\theta = 53.1^\circ$ 