

	a	b	c	A	B	C
1.	75	58		$105^\circ$		
2.	10		34	$12^\circ$		
3.	6			$25^\circ$		$105^\circ$
4.	68	22			$29^\circ$	
5.	18		74		$75^\circ$	
6.	64	15	75			

7.	8.	9. A. B.	10.	11.
----	----	-------------	-----	-----

**For #7-11, put answers in the appropriate box above. Show all work on a separate sheet of paper.**

Find the area of the following triangles.

7.  $a = 15$  in.  $b = 18$  in.  $c = 21$  in.

8.  $b = 40$  cm,  $c = 45$  cm,  $A = 51^\circ$

**#9-11 Find the requested information.**

9. A used car lot has a large balloon tied down with wires to stakes 1500 feet apart. The angle of elevation from the stake at the west end of the lot to the balloon is  $50^\circ$ , and the angle of elevation from the stake at the east end of the lot to the balloon is  $72^\circ$ . How long is each wire?

10. The airline distance from Curtis City to Clearfield is 350 miles. It is 620 miles from Curtis City to Spinville and 495 miles from Clearfield to Spinville. Find the angle between the routes from Clearfield.

11. A trigonometry class wants to determine the length of a pond near the school. From a point, A, they measure the distance to each end of the pond and the angle between these two sides. What is the approximate length of the pond? (see figure)

