

OK to use calculator for #14-23. Sketch diagrams, show work, round to the nearest tenth.

Use a right triangle for #14-16 where $\angle C = 90^\circ \rightarrow$ 14. If $A = 38^\circ$ and $a = 24$, find b .

15. Solve the right triangle: $B = 49^\circ$, $a = 16$
 (reminder: "solve triangle" = find all sides/angles)

16. Solve the right triangle: $A = 64^\circ$, $c = 28$

17. Solve the triangle using Law of Cosines and/or Law of Sines. $c = 8$, $C = 49^\circ$, $B = 57^\circ$
 Draw a diagram.

18. Solve for b using the Law of Cosines.
 $B = 19^\circ$, $a = 51$, $c = 61$

19. In a triangle, $b = 7$, $a = 9$, and $c = 12$. Solve for A .
 Draw a diagram. Be sure to use proper order of operations.

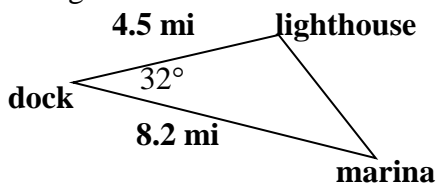
Find the area of each triangle for #20-21. Draw a diagram. HINT: $A = \frac{1}{2}(\text{side1})(\text{side2})(\sin \text{included angle})$

20. $B = 22.6^\circ$, $a = 18.4$, $c = 6.7$

21. $b = 24$, $A = 56^\circ$, $B = 78^\circ$

22. A kite is fastened to the ground by a string that is 65 meters long. If the angle of elevation of the kite is 70° , how far is the kite above the ground? Draw a diagram.

23. Hugo is taking a boat tour of a lake. The route he takes is shown below.



a. How far is it from the lighthouse to the marina?

b. What is the angle between the route from the dock to the marina and the route from the marina to the lighthouse?

#14-23 CHECK ANSWERS		
5.0	8.9	10.2
12.3	18.4	21.0
23.7	24.4	25.2
26	28.5	30.7
41	48.2	61.1
74	175.6	