

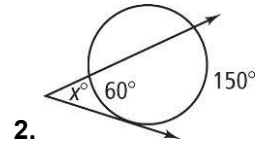
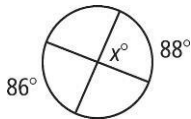
## Practice

### HW-42

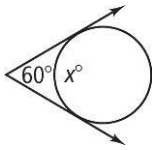
### Angle Measures and Segment Lengths

Find the value of *the variable*

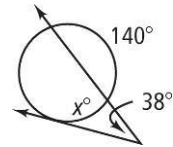
1.



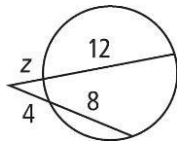
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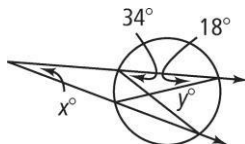


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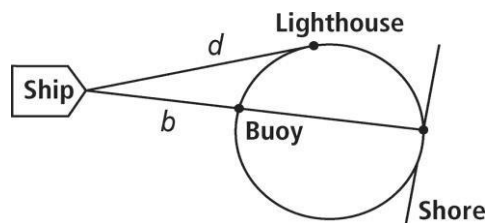


Find the value of each variable using the given chord, secant, and tangent lengths.  
If the answer is not a whole number, round to the nearest tenth.

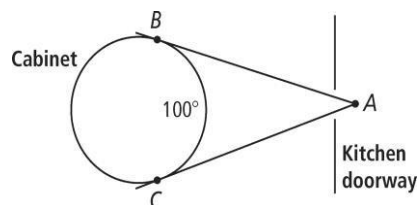
5.



6. The distance from your ship to a lighthouse is  $d$ , and the distance to the buoy is  $b$ . Express the distance to the shore in terms of  $d$  and  $b$ .



7. There is a circular cabinet in the dining room. Looking in from another room at point  $A$ , you estimate that you can see an arc of the cabinet of about  $100^\circ$ . What is the measure of  $\angle A$  formed by the tangents to the cabinet?



8. If three tangents to a circle form an equilateral triangle, prove that the tangent points form an equilateral triangle inscribed in the circle.