Trig

1. calculate sine, cosine, tangent from diagram
2. Calculator use, finding missing sides
3. Find angle value using inverse function
4. Angle of elevation, depression, declination, incline (in Regents scope?)
5. Word problem interpretation
6. Sine and cosine are cofunctions, explain and apply

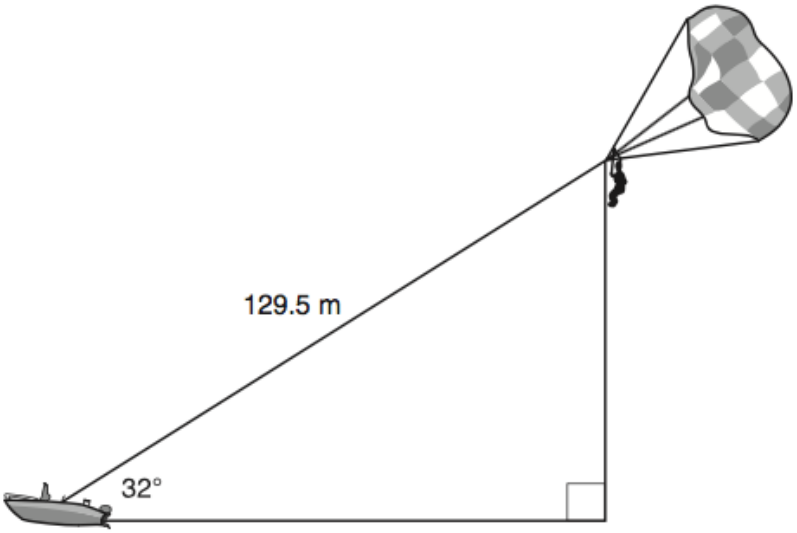
Diagrams

1. Sine and cosine
2. Sine and cosine are cofunctions, explain and apply
   Given the right triangle ABC with $m\angle C = 90°$. If $\sin A$ increases, will $\cos B$ increase, decrease, or stay the same? Explain why.
   Draw a right triangle, labeling vertices with capital letters and opposite sides with small letters. Write down the trig functions as ratios, explaining that they are equal.

Regents trigonometry problems

1. Round to *the nearest tenth* of a meter.

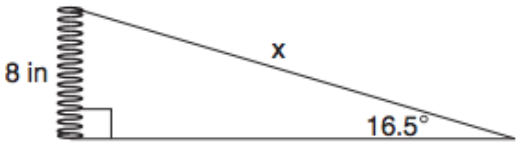
   A man was parasailing above a lake at an angle of elevation of 32° from a boat, as modeled in the diagram below.



   If 129.5 meters of cable connected the boat to the parasail, approximately how many meters above the lake was the man?

2. Solve for x.

   Yolanda is making a springboard to use for gymnastics. She has 8-inch-tall springs and wants to form a 16.5° angle with the base, as modeled in the diagram below.



   To the *nearest tenth of an inch*, what will be the length of the springboard, x?