MBF 3C **Quiz:** S=O/H, C=A/H, T=O/A

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course expectation you’re working on…

\_\_\_\_ *Students will solve problems, including those that arise from real-world applications (e.g., surveying, navigation), by determining the measures of the sides and angles of right triangles using the primary trigonometric ratios.*

* Answer each of the following on the quiz paper in the spaces provided.
* Show each of the steps in your thinking process.
* Make sure that your calculator is in DEG (or D) mode!

1. Using angle A as your reference angle, label the *opp*, adj and *hyp*.

2. The sin ratio for angle A in the above triangle can be written as$ sinA=\frac{3}{5}$.

 Write the *cosine* and *tangent* ratios for angle A.

a) *cos* A = $\frac{ }{}$ b) *tan* A = $\frac{ }{}$

3. Use one of the inverse trig ratios (*sin*-1, *cos*-1, or *tan*-1) and its corresponding ratio in #2 to find the measure of angle A. Round angle A to the nearest degree.

4. Determine the measure of the remaining angle in the given triangle—angle B.

5. Consider the following scenario.

A rescue helicopter is flying horizontally at an altitude of 1500 feet over Georgian Bay toward Beau-soleil Island. The angle between the horizontal and the island is 90.

a) What trig ratio (sin, cos, or tan) would you use to determine how much farther the helicopter must fly before it is above the island? \_\_\_\_\_\_\_

*Clearly explain your choice.*

( Over 🡪 )

b) Calculate this distance (i.e., the horizontal distance) using the trig ratio you’ve chosen in a). Round your answer to the nearest foot.



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