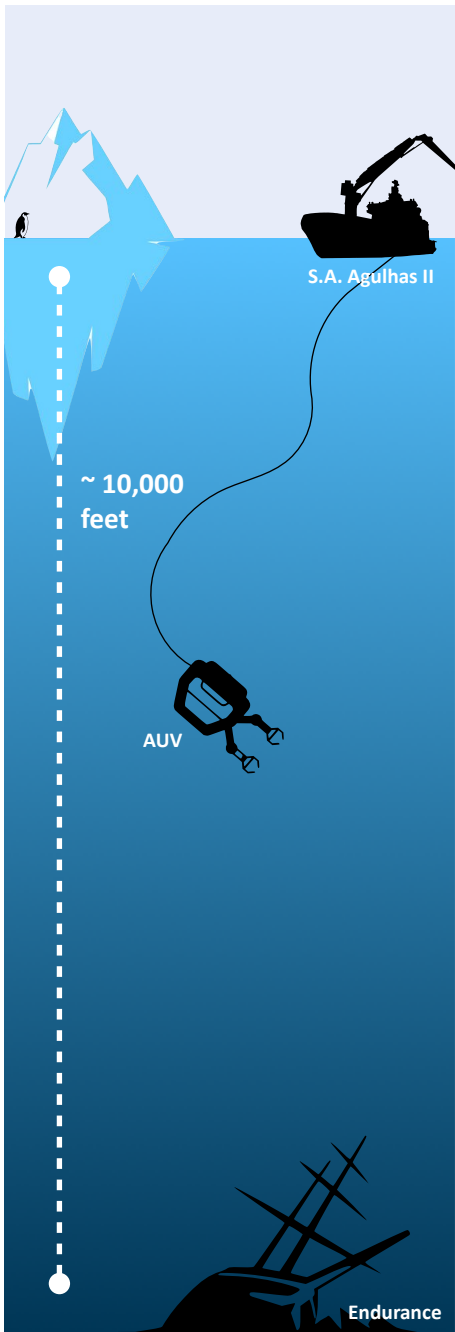S.A. Agulhas II

~ 10,000 feet

AUV

Endurance

Discovering Endurance, Using Math

1. Imagine that Endurance took 13 hours to sink the first 5,000 feet. If a current from the surface of the water to 5,000 feet below the surface is moving at 8 knots, how far, in nautical miles, would Endurance's final resting place be from its sinking site? Draw a diagram to explain your answer.

1 knot = 1 nautical mile per hour

2. Between 5,000 and 8,000 feet below the surface, there's a current moving at 5 knots in the opposite direction. Imagine that Endurance takes 6 hours to sink between 5,000 and 8,000 feet below the surface. Between 8,000 and 10,000 feet below the surface, the water is still. How far, in nautical miles, would the Endurance's final resting place be from its sinking site? Draw a diagram to explain your answer.

1 knot = 1 nautical mile per hour

3. Let's assume that the S.A. Agulhas II is parked at the Endurance's sinking site. Use the distance between the sinking site and the final resting place from your answer for #2 to calculate the angle that the Agulhas II's sub-sea robotics team should send their AUV to search for the Endurance. Draw a diagram to explain your answer.

1 nautical mile = 6,076 feet