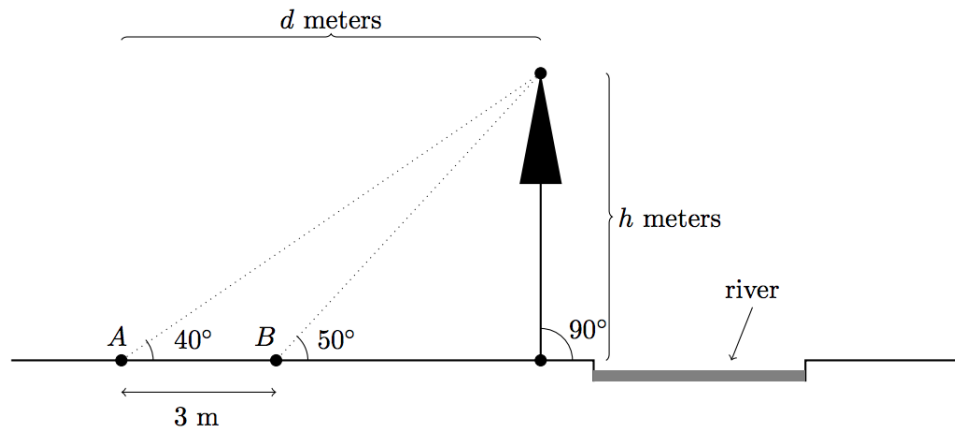# Attendance Quiz 1

3/12/18

Write your names and answers on this sheet. This will be collected.

1. Chuck had a strange yet familiar dream on the night he got back to the farm. His path was blocked by a fast-flowing river. Spying a small tree beside the river, Chuck thought about cutting sown the tree to make a log bridge. He knows the points A and B are three meters apart, and he knows the angle between the ground and the line from the points A and B to the top of tree. The tree is h meters tall and makes a right angle with the ground. The figure below depicts the situation.

(a) Write expressions for $\tan(40°)$ and $\tan(50°)$ in terms of d and h

$$\tan(40°) = \underline{\hspace{4cm}}$$

$$\tan(50°) = \underline{\hspace{4cm}}$$

(b) Solve the system of equations you got in part (a) to find h in terms of $\tan(40°)$ and $\tan(50°)$ (and not in terms of d)

$$h = \underline{\hspace{4cm}}$$