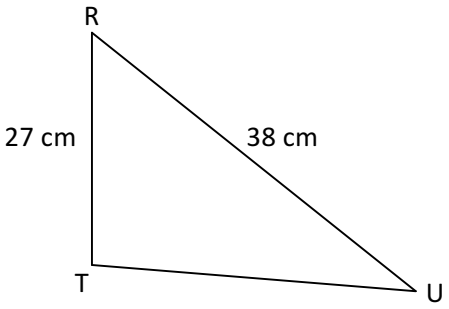
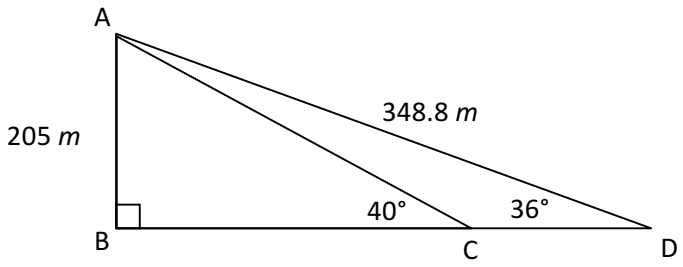
MAP 4CI Unit 2 Day 11 **Applications of Trigonometry** Date:_____

Ex. 1 From the top of a vertical cliff a person measures the angle of depression of a boat as 9º. The height of the cliff is 142 m. How far is the boat from the base of the cliff? Round your answer to the nearest m.

Ex. 2 Find the length of TU to the nearest tenth.



Ex. 3 A smokestack, **AB**, is 205m high. From two points C and D on the **same side** of the smokestack's base B, the angles of elevation to the top of the smokestack are 40^o and 36^o respectively. The distance from the top of the smokestack to point D is 348.8 m. Find the distance between C and D to the nearest metre.



Ex. 4 Two guy-wires are anchored at the same point. The first guy-wire is 12 m in length and is attached to the top of a tower. The second guy-wire is 9 m in length and is attached to a point 5 m below the top of the tower. How far are the wires anchored from the base of the tower? Round your answer to the nearest tenth of a metre.

U2D11 Practice: Pg 126 # 1, 2, 3, 5, 7, 9, 11 ✓ Answers Pg 542 2.5