Exercise
(Ratio in Trigonometry)

Name / Class:.....................

Draw a diagram (a neat right-angled triangle) and mark the given information on the diagram.

1. A 3 m rope supporting the centre pole of a tent is attached to a point on the ground 2 m from the base of the pole. Find the angle the rope makes with the top of the tent pole. (Answer correct to the nearest minute).

2. Michelle climbs 400 m up Mt Kosciusko at a slope of 30°. Exactly how high vertically above her starting point is she after the climb?

3. Anthony's kite is flying at the end of a fully stretched 20 m length of string. If the angle of elevation of the kite is 45°, exactly how far from Anthony must his friend stand to be directly under the kite? (Answer correct to two decimal places).

4. While sitting in a 3.8 m high life guard tower, Kelvin sights a shark out at sea. Find the angle of depression from the tower to the shark if the shark is 141 m from the base of the tower. (Answer correct to two decimal places).

5. A diagonal of a rectangle is 10 cm long and makes an angle of 60° with one of the sides. Find the length of the sides of the rectangle.