



Name: _____

Date: _____

Handwritten: ~~17~~ Mar 8

...BLM 1-12
(page 2)

4. A funnel used to pour oil into an engine is in the shape of a cone. The sides of the cone are 15 cm long and the angle between the sides is 17.9° . What is the diameter of the cone?

$$a^2 = b^2 + c^2 - 2bc(\cos A)$$

$$a = 4.7 \text{ cm}$$

$$A = 17.9^\circ$$

$$B = b = 15 \text{ cm}$$

$$C = c = 15 \text{ cm}$$

5. Jesse is in a hot air balloon 6500 m above a lake. She measures the angle of depression to the far side of a lake to be 32° and the angle of depression to the near side of the lake to be 45° . Determine the distance across the lake.

Handwritten: SOH CAHTOA

$$\tan 32^\circ = \frac{O}{A}$$

$$\tan 32^\circ = \frac{6500}{x}$$

$$A = 103^\circ$$

$$\tan 45^\circ = \frac{O}{A}$$

$$\tan 45^\circ = \frac{6500}{y}$$

6. A hydro pole on the side of a hill casts a 36 m long shadow up the hill. The hill has a 13° angle of elevation to the horizontal and the sun has an angle of elevation of 43° . How tall is the hydro pole?

$$10,402 + 6500$$

$$x + y = 16,902 \text{ m}$$





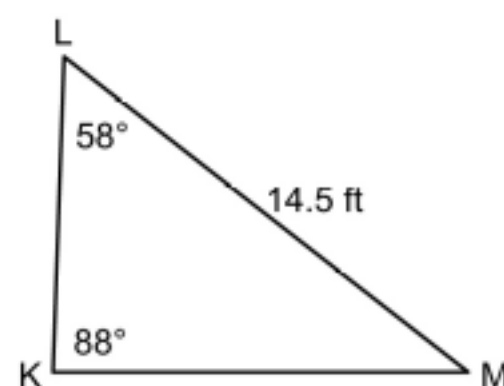
6. A hydro pole on the side of a hill casts a 36 m long shadow up the hill. The hill has a 13° angle of elevation to the horizontal and the sun has an angle of elevation of 43° . How tall is the hydro pole?

Foundations for College Mathematics 11: Teacher's Resource
BLM 1-12 Section 1.5 Make Decisions Using Trigonometry

Copyright © 2007 McGraw-Hill Ryerson Limited

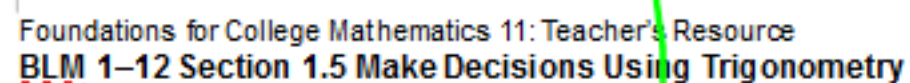
Name: _____ Date: _____

BLM 4.14.1
(page 3)





6. A hydro pole on the side of a hill casts a 36 m long shadow up the hill. The hill has a 13° angle of elevation to the horizontal and the sun has an angle of elevation of 43° . How tall is the hydro pole?



Name: _____ Date: _____

+