

Name: _____

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Worksheet June 6

Trigonometry

Summer A 2016

1. Solve each triangle (if a triangle with the given data exists). Express angles in degrees. Specify if more than one triangle or no triangle is possible.

(a) $B = 5^\circ$, $C = 125^\circ$, $b = 200$

(b) $a = 10$, $b = 30$, $A = 150^\circ$.

(c) $a = 10$, $b = 30$, $C = 120^\circ$.

(d) $a = 5$, $b = 7$, $c = 10$.

2. (Similar to problem 57 section 7.1 textbook) You are trying to measure the height of a tall redwood tree. From a certain point (whose distance to the tree you cannot measure), you see the top of the tree at an angle of elevation of 35° from the horizontal. If you get 100 feet closer to the tree, then you see the top at an angle of elevation of 40° from the horizontal. Find the height of the tree.

3. (Similar to Problem 67 section 7.2 textbook) The minute hand and the hour hand of a clock have lengths m inches and h inches, respectively. Determine the distance between the tips of the hands at 4:00 in terms of m and h .