

Name: _____

Panther ID: _____

Worksheet May 27

Trigonometry

Summer A 2016

1. Use a right-angle triangle to rewrite each expression in a form not involving inverse trig functions.

(a) $\cot(\arcsin x)$

(b) $\sin(\sec^{-1} x)$

2. Verify each identity

(a) $\cot t + \frac{\sin t}{1 + \cos t} = \csc t$

(b) $\cos^4 x - \sin^4 x = 1 - 2\sin^2 x$

3. Find the hypotenuse and the angles of a right angle triangle whose sides are 5 and 12 feet long.

4. A flagpole is situated on top of a building. The angle of elevation from a point on level ground 330 feet from the building to the top of the flagpole is 63° . The angle of elevation from the same point to the bottom of the flagpole is 53° . Find the height of the flagpole to the nearest tenth of foot.