

**MATH. 125, QUIZ 7 - Section 4.7 & 4.8** (25points = 5% final grade)

1. (6 points each) **NO calculator allowed for this problem! Find the exact value of each expression; if there is no possible answer write undefined and EXPLAIN. SHOW YOUR WORK.**

(a)  $\sin(\cos^{-1}(-\frac{1}{5})) =$

(b)  $\tan(\sin^{-1}(\frac{1}{4})) =$

*go to the next page*

2. Solve the following right triangles; that is find all the remaining sides and angles of the triangles. We follow the usual convention that the vertex opposite to side  $a$  is denoted by  $\alpha$ , vertex opposite side  $b$  is denoted by  $\beta$ , and vertex opposite side  $c$  is denoted by  $\gamma = 90^\circ$ . Round your answer to two decimal points; express the angles in degrees. . **You are allowed to use a calculator but you still have to show your work step by step (like in the book) not just write the final answer.**

(a) (7 points total) If  $a = 17, \beta = 41^\circ$  then

i.  $b =$

ii.  $c =$

iii.  $\alpha =$

(b) (7 points total) If  $c = 15, b = 11$ , then

i.  $a =$

ii.  $\alpha =$

iii.  $\beta =$