King Fahd University of Petroleum and Minerals Diploma Math Program Math 004 - Term 033 Quiz#2 (4.5 – 5.3)		
Name:	ID:	Sec.:
	Show all steps for full credit	
<u>Questio</u>	<u>n1:</u> Fill in the blank	(10 pts)
a. If a spe <u>Solutio</u>	a wheel is rotating at 100 revolutions per minute eed of the wheel in radian per second is on:	, then the angular
b. If <i>e</i> <u>Solutio</u>	$\theta = -110$, then reference angle θ' is on:	_·
c. Th <u>Solutio</u>	the exact value of $\tan 54^\circ + \tan 126^\circ + \tan 330^\circ$ on:	° is
d. If th tan <u>Solutio</u>	the terminal side of an angle θ passes through the function $\theta + \sec \theta$.	ne point(–12,5), then

e. If $\alpha = 44^{\circ}6'2''$, then the supplement of the angle α is _____. Solution:

Question2:

a. Find the length of an arc that subtends a central angle of 135° in a circle of diameter 80 ft.

b. Find the height of a building if the angle of elevation to the top of the building changes from 30° to 45° as the observer moves a distance of 40 ft toward the building.

Question3:

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(4 pts)

Solve the equation $\log_3(-x) + \log_3(6-x) = 3$