INVERSE TRIG WITH UNIT CIRCLE

TEXT: 4.3

LAST NAME	FIRST NAME	DATE

1 (2 points). Find the radian measure of the angle α if $\sin\alpha = 0.321$ and α is a positive acute angle in the 1st quadrant. Round your answer to 3 significant digits.

2 (2 points). Find the radian measure of the angle β if $\cos\beta = -41/57$ and β is a positive obtuse angle in the 2nd quadrant. Round your answer to 3 significant digits.

3 (2 points). Find the radian measure of the angle ϕ if $\tan\phi = -5$ and $-\pi/2 \leq \phi \leq 0$. Round your answer to 3 significant digits.

4 (2 points). Find the radian measure of the angles θ if $\cot\theta = 4/15$ and $5\pi \leq \theta \leq 6\pi$. Round your answer to 3 significant digits.

5 (8 points)**.** Find the radian measure of the angle which is determined by a range of values and a point where its terminal side meets the unit circle. Round your answers to 3 significant digits.

(a) $0 \leq \phi \leq 2\pi$, terminal side contains the point $(0.63, 0.7766)$

(b) $0 \leq \phi \leq 2\pi$, terminal side contains the point $\left(-\frac{\sqrt{5}}{3}, \frac{2}{3}\right)$

(c) $-2\pi \leq \sigma \leq 0$, terminal side contains the point $\left(\frac{56}{65}, \frac{33}{65}\right)$

(d) $-2\pi \leq \sigma \leq 0$, terminal side contains the point $(-0.2025, -0.9793)$