UNIT CIRCLE

TEXT: 4.3

LAST NAME	FIRST NAME	DATE

1 (1 point). Find the exact y coordinate of a point on the unit circle if the x coordinate is $3/8$ and the point is in the 4th quadrant.

2 (1 point). Find the exact x coordinate of a point on the unit circle if the y coordinate is $-\sqrt{\frac{2}{5}}$ and the point is in the 3rd quadrant.

3 (1 point). **Without using inverse trig functions**, find the exact value of $\tan\beta$ if $\cos\beta = \frac{1}{\sqrt{5}}$ and β is an angle in the 1st quadrant.

4 (1 point). Find the point where the terminal side of the angle with radian measure $9\pi/16$ meets the unit circle. Round your answer to 4 significant digits.

5 (5 points)**.** Find **all** points on the unit circle corresponding to an angle α satisfying the given condition. In each case, make a rough sketch of the circle and the points, and state your answers as coordinate pairs (x, y). You may round your answers to 4 significant digits.

(a) $\sin(\alpha) = 0.32$

(b) $\cos(\alpha) = -0.81$

(c) $\sec(\alpha) = -1$

(d) $\csc(\alpha)$ undefined

(e) $\tan(\alpha) = 2.7$