MTH 130 Precalculus, Classwork 11 **Fall 2014**

(1) Solve

(a) $\dfrac{5}{1-e^{-x}} = 2.$

(b) $e^x + 12e^{-x} = 1$

(2) Find the inverse function for

(a) $f(x) = 5^{x-2}$

(b) $f(x) = 3\ln(x+2)$

(3) Find the point on the unit circle:

(a) whose x-coordinate is negative and whose y-coordinate is $-\frac{1}{4}$.

(b) whose y-coordinate is positive, and whose x-coordinate is $-\frac{2}{3}$.

(c) corresponding to the terminal point for $t = 20\pi$.

(d) corresponding to the terminal point for $t = -19\pi$.

(e) corresponding to the terminal point for $t = -7\pi/2$.

(f) corresponding to the terminal point for $t = 14\pi/3$.

(g) corresponding to the terminal point for $t = 11\pi/6$.

(4) Find the reference number $\bar{t}$ for:

(a) $t = \pi/2$

(b) $t = 17\pi/4$

(c) $t = -2\pi/7$

(d) $t = -8\pi/3$