Name:

QUIZ 24 – MATH IB HL

1. (45%) Given that $\cos(x) = -\dfrac{3}{5}, \pi < x < \dfrac{3\pi}{2}$ Find:

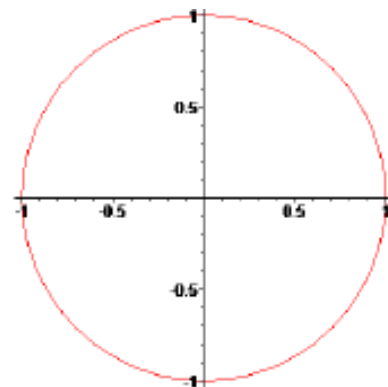   a. (10%) $\sin(x) =$ c. (10%) $\text{Cos}(2x) =$

    b. (5%) $\tan(x) =$ d. (10%) $\text{Cos}(3x) =$

    e. (10%) (sketch on unit circle to show answer)

        $\cos(\pi - x) =$

        $\text{Sin}(\dfrac{3\pi}{2} - x) =$

2. (15%) Given that $\tan(x) = -2, 0 < x < \pi$

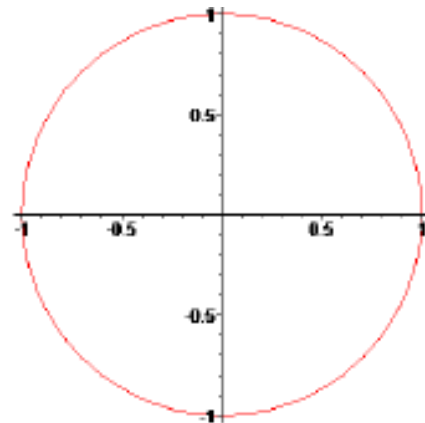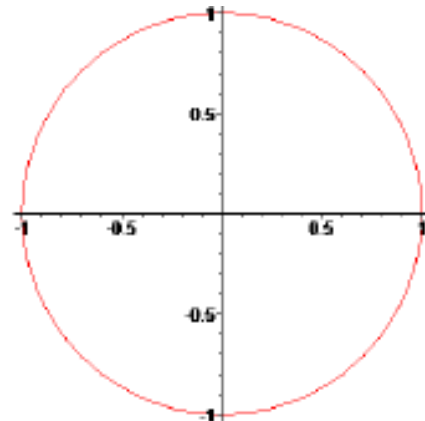   a. (5%) x is in the _____ Quadrant.

    b. (10%) $\text{Cos}(x) =$

3. (20%) In each one of the cases **Find** (5%) and **sketch** (5%) on the unit circle, <u>Angle found should be within [0, 360°]</u>

   a. (5%) $Cos(43°) = Cos(\underline{\hspace{1.5cm}})$

   b. (5%) $sin(13°) = Sin(\underline{\hspace{1.5cm}})$

   c. (5%) $tan(20°) = tan(\underline{\hspace{1.5cm}})$

   d. (5%) $Tan(\dfrac{2\pi}{3}) = \underline{\hspace{1.5cm}}$

4. (20%) Given that the area shaded is 3 cm^2 and that the length of the minor arc AB is 3 cm. Find the angle x and the radius of the circle.