MATH 190G Trig/Precalc: Quiz #1

Due on Monday January 29, 2018

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Problem 1

(a)
$$trigchart$$

(b)
$$trigchart$$

(c)
$$trigchart(10 \; revolutions \; of \; \frac{\pi}{3} \; goes \; to \; \frac{4\pi}{3})$$

Problem 2

(a)
$$Quadrant \; II \; : \; 180° - 175° = 5°$$

(b)
$$Quadrant \; IV : \; 360° - 340° = 20°$$

(c)
$$745 \div 360 = 2.0...$$
$$745 - 360 \times 2 = 25$$

Problem 3

Quadrant II: tan is negative so either sin or cos is negative. we know sin is positive so cos must be negative. cos=x sin=y so x<0, y>0 which implies Quadrant II

Problem 4

(a)
$$\frac{53\pi}{6} \times 180° \div \pi = 1590°$$

$$1590° \div 360° = 4.XXXX$$

$$1590° - 360° \times 4 = 150°$$

the trig chart says a 150° reference angle is $\frac{\pi}{6}$

(b)
$$unit \; circle \; chart$$

Problem 5

$$\sin = x = -\frac{5}{13} \tag{1}$$

$$\cos = y = -\frac{12}{13} \tag{2}$$

$$\tan = \sin \div \cos = \frac{5}{12} \tag{3}$$