Practice #9   Alg 2   Radians   Thursday, March 26, 2020

1. Convert each angle into degrees. Round to the nearest hundredth.

a) $\theta = \frac{5\pi}{3}$
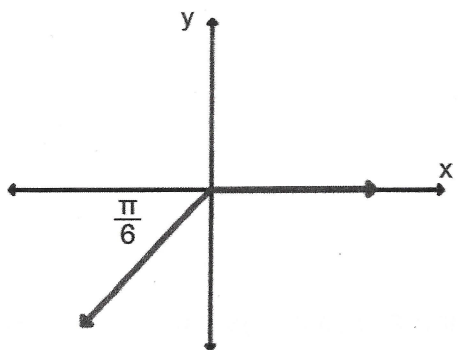
b) $\theta = \frac{7\pi}{15}$

2. Convert each angle into radians. Leave answer in terms of π and in simplified fractional form.

a) $\theta = 240°$

b) $\theta = 150°$

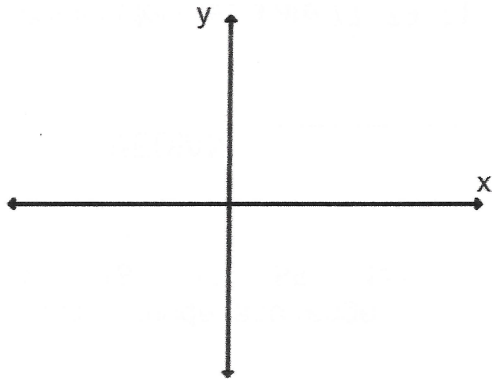3. State both a positive and a negative measure, in radians, for this angle in Standard Position:

POS: NEG:

4. State the Reference Angle, in radians, for this angle in Standard Position.

$\theta = \frac{2\pi}{3}$

ANSWERS

1. Convert each angle into degrees. Round to the nearest hundredth.

a) $\theta = \frac{5\pi}{3} \cdot \frac{180°}{\pi}$

$= \boxed{300°}$

b) $\theta = \frac{7\pi}{15} \cdot \frac{180°}{\pi}$

$= \boxed{84°}$

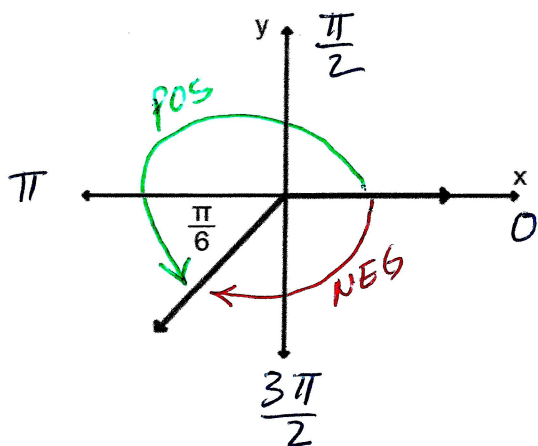2. Convert each angle into radians. Leave answer in terms of π and in simplified fractional form.

a) $\theta = 240° \cdot \frac{\pi}{180°}$

$= \boxed{\frac{4\pi}{3}}$

b) $\theta = 150° \cdot \frac{\pi}{180°}$

$= \boxed{\frac{5\pi}{6}}$

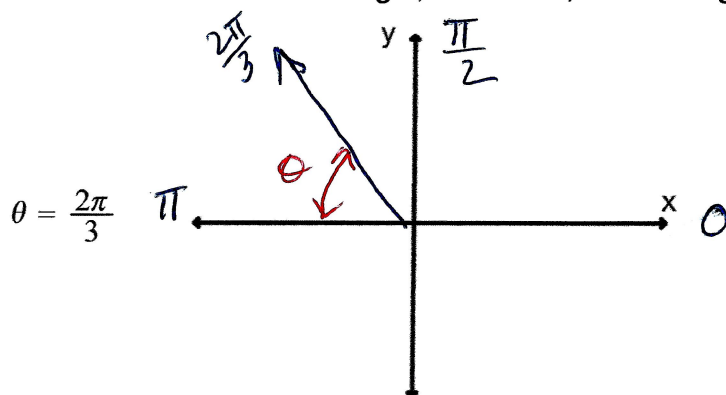3. State both a positive and a negative measure, in radians, for this angle in Standard Position:

POS:

$\pi + \frac{\pi}{6}$

$= \frac{6\pi}{6} + \frac{\pi}{6}$

$= \boxed{\frac{7\pi}{6}}$

NEG:

$-\left(\pi - \frac{\pi}{6}\right)$

$= -\left(\frac{6\pi}{6} - \frac{\pi}{6}\right)$

$= \boxed{-\frac{5\pi}{6}}$

4. State the Reference Angle, in radians, for this angle in Standard Position.

$\theta = \frac{2\pi}{3}$

$\text{Ref } \angle\theta = \pi - \frac{2\pi}{3}$

$= \frac{3\pi}{3} - \frac{2\pi}{3}$

$\boxed{\text{Ref } \angle\theta = \frac{\pi}{3}}$

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