Name:_____

4.2

Angles!(mostly)

For 1-6, find the measure of each reference angle.

1) 327° 2) 148° 3) 563° 4)-421° 5) $\frac{5\pi}{4}$ 6) $-\frac{\pi}{3}$

For 7-10, identify all angles that are coterminal with each angle. Then, find one positive and one negative angle that are coterminal with each angle.

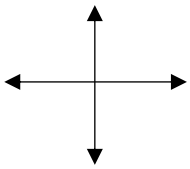
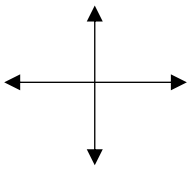
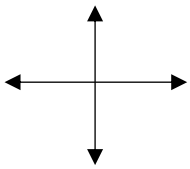
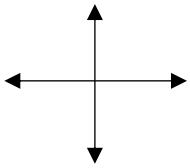
7) 30° 8) -225° 9) $\frac{5\pi}{6}$ 10) $-\frac{4\pi}{3}$

For 11-14, convert from radians to degrees or degrees to radians respectfully. When applicable leave in terms of π.

11) $\frac{7\pi}{10}$ 12) $\frac{\pi}{8}$ 13) 118° 14) -91°

For 15-18, draw each angle. Then, if each angle is in standard position, determine a coterminal angle that is between 0° and 360°. Finally, state the quadrant in which the terminal sides lies.

15) 400° 16) 940° 17) -624° 18) -280°

For 19 & 20, given the measurement of a central angle, find the length of its intercepted arc in a circle of radius 14 cm. Round to the nearest tenth.

$s = r\theta$ $A = \frac{1}{2}r^2\theta$

19) 150° 20) $\frac{3\pi}{11}$

For 21 & 22, find the area of each sector given its central angle θ and the radios of the circle. Found to the nearest tenth.

21) θ = $\frac{5\pi}{12}$, r = 10 22) θ =225°, r = 6