Name: _____ Hour: _____ Date: _____

Honors Trig Test Review Guide – DO ALL WORK ON SEPARATE PAPER

Test: Friday, May 11, 2018

Write each measure in radians. Express your answer in terms of π.

1. 78°
2. -55°

Write each measure in degrees.

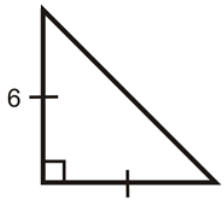
3. $-\frac{14\pi}{23}$
4. $\frac{6\pi}{47}$

(a) Calculate a coterminal angle satisfying $0° \le \theta \le 360°$.
(b) Sketch the coterminal angle in *standard position*.
(c) Calculate the reference angle of the coterminal angle.

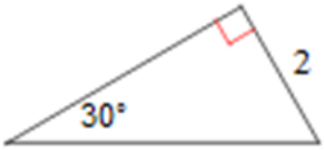
5) $780°$
6) $-675°$
7) $\frac{8\pi}{3}$
8) $-\frac{17\pi}{6}$

(a) List all of the sides of each triangle. Label them on your paper as "long leg", "short leg", "hypotenuse" or "legs".
(b) Use your answers to find the sine, cosine and tangent of angle A and angle B.

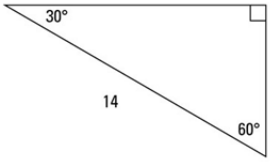
9)



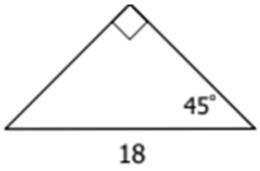
10)



11)



12)



(a) Sketch each angle in standard position.
(b) Determine the reference angle.
(c) Sketch the reference triangle and correctly label each side.
(d) Find the *exact* value for the sine, cosine, and tangent of the original angle.

13) $210°$
14) $135°$
15) $-60°$
16) $\frac{5\pi}{4}$
17) $\frac{5\pi}{3}$
18) $-\frac{7\pi}{6}$

Given one trig ratio find the remaining trig ratios. Then use the Pythagorean identity $\boldsymbol{sin^2\theta + cos^2\theta = 1}$ to verify your ratios.

19) $\sin\theta = \frac{3}{4}$ *and* $\tan\theta$ *is negative*
20) $\sin\theta = \frac{-3}{5}$ *and* $\cos\theta$ *is positive*
21) $\tan\theta = \frac{4}{9}$ *and* $\cos\theta$ *is positive.*

22) $\tan\theta$ = -1 and $\sin\theta$ is *positive*
23) $\sin\theta = -\frac{6}{7}$ and $\tan\theta$ is *negative*
24) $\cos\theta = -\frac{2}{3}$ and $\tan\theta$ is positive

Solve for all possible of θ, where $0° \le \theta \le 360°$. Afterwards, find one angle that is coterminal to one of your values of θ.

25) $\sin\theta = \frac{1}{\sqrt{2}}$
26) $\cos\theta = \frac{\sqrt{3}}{2}$
27) $\tan\theta = \frac{1}{\sqrt{3}}$
28) $\sin\theta = \frac{-1}{2}$
29) $\tan\theta = -\sqrt{3}$

30) $4cos\theta = 2$
31) $2cos\theta + 3 = 2$
32) $-3tan\theta = 3$
33) $4sin\theta - 2\sqrt{3} = 0$