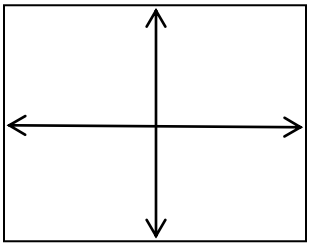
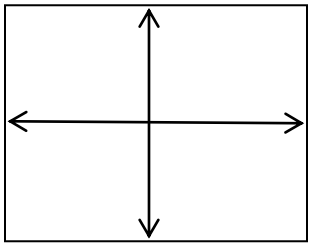
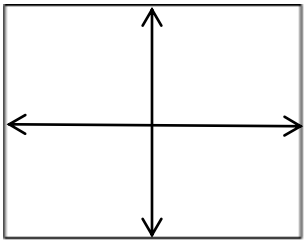
Precalc Names_____ Date_____

4.1, 4.3 Trig Review 1112

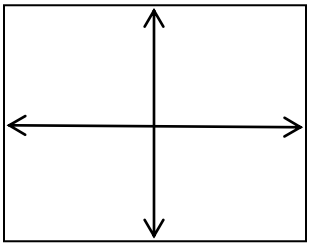
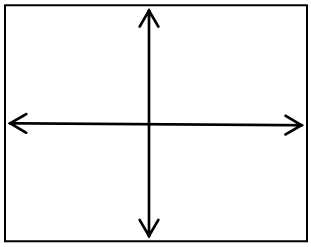
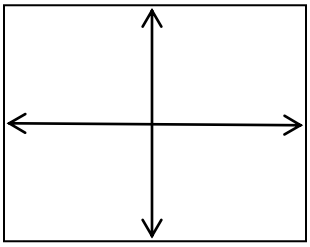
Answers to radian questions should be in radians (fractional form with π in answer); answer to degree questions in degrees; unless otherwise specified

Sketch the angle in standard position using a directional arrow. Calculate and sketch a positive and a negative coterminal angle.

1. 58^{o} _____ _____

2. $\frac{7\pi}{8}$ _____ _____

For each angle, calculate a complementary and supplementary angle

3. 77^{o} _____ _____

4. $\frac{\pi}{4}$ _____ _____

5. Convert to decimal degrees
   a. $65^{o}15'18''$ _____
   b. $315^{o}54'36''$ _____

6. Convert to degrees/minutes/seconds
   a. 44.52 _____
   b. 197.94 _____

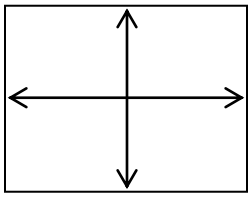
7. Convert to radians (fractional answer with π)
   a. 35^{o} _____
   b. 375^{o} _____

8. Convert to degrees
   a. $\frac{5\pi}{4}$ _____
   b. $\frac{-\pi}{6}$ _____

9. Arc Length calculations; find the missing measure (radians not in terms of π). State units.
   a. Given radius = 2 inches; θ = 5 radians; find the arc length, ***s*** _____
   b. Given arc length, s = 10 cm; θ = 2 radians; find the radius, ***r*** _____

Given (x,y) point on the coordinate, graph the right triangle (if possible), and evaluate the six trig functions. If the function is undefined, write "undefined".

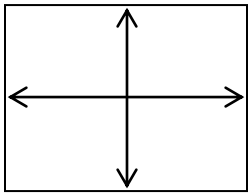
10. $P(3,4)$



sin = _____ cos =_____ tan = _____

csc = _____ sec =_____ cot = _____

11. $P(-2,-4)$



sin = _____ cos =_____ tan = _____

csc = _____ sec =_____ cot = _____

12. Evaluate without using a calculator (use ASTC and Mr. Pythagoras). Answers in rationalized fractions.

a. Find $\sin\theta$ and $\tan\theta$ if $\cos\theta = -\frac{5}{9}$ and $\csc\theta < 0$ _____

_____

b. Find $\csc\theta$ and $\cot\theta$ if $\sec\theta = \frac{13}{11}$ and $\tan\theta > 0$ _____

13. Find the ***two*** values for θ that satisfy the equation.

a. $\tan\theta = -\frac{\sqrt{3}}{3}$ _____ _____

b. $\cos\theta = \frac{\sqrt{2}}{2}$ _____ _____

c. $\sec\theta = Und$ _____ _____