

Trigonometry

Name: _____

Study Guide 5

Class: _____

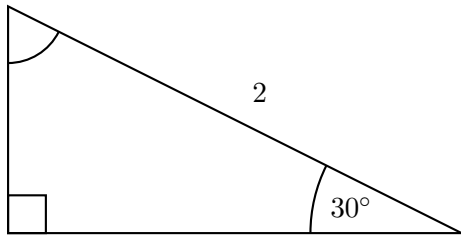
Due Date: _____

Score: _____

No Work \Leftrightarrow No Points

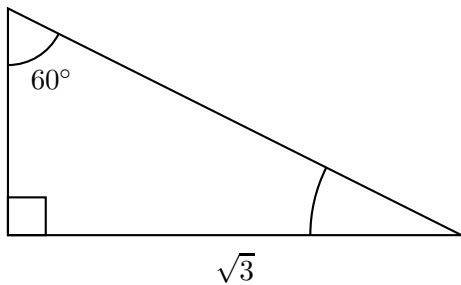
Use Pencil Only \Leftrightarrow Be Neat & Organized

1. (4 points) Find the missing sides and then find the value of all six trigonometric function of the indicated angle.



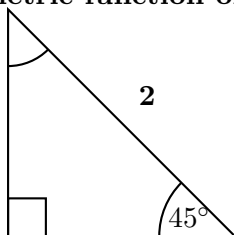
1. _____

2. (4 points) Find the missing sides and then find the value of all six trigonometric function of the indicated angle.



2. _____

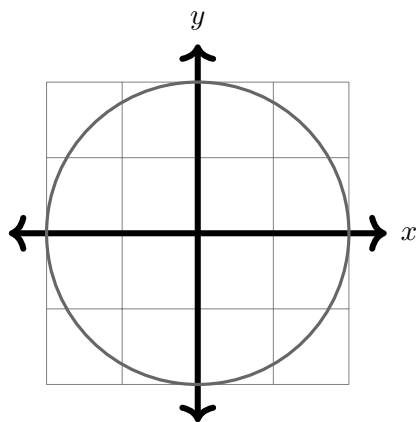
3. (4 points) Find the missing sides and then find the value of all remaining trigonometric function of the indicated angle.



3. _____

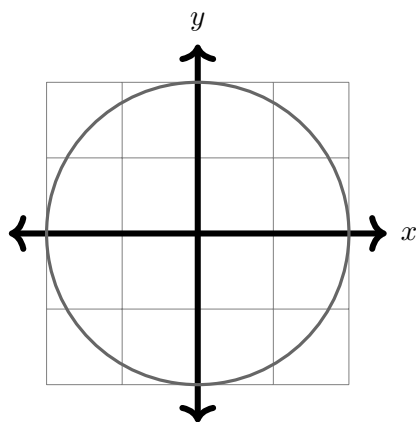
4. Draw the angle in standard position using the unit circle below and find its reference angle in degrees for the indicated angles below:

(a) (3 points) 125°



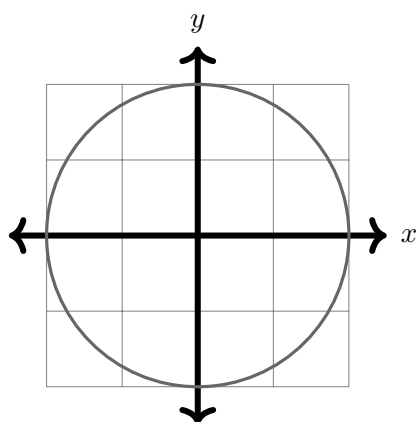
(a) _____

(b) (3 points) 240°



(b) _____

(c) (3 points) -105°



(c) _____

5. (4 points) Simplify: $\sec^2 \alpha - \sin \alpha \cdot \csc \alpha$

5. _____

6. (4 points) Simplify: $\sin x \csc x + \cos x \sec x - 2 \tan x \cot x$

6. _____

7. (3 points) Verify: $(\csc x - 1)(\csc x + 1) = \cot^2 x$

7. _____

8. (3 points) Verify: $(\sec x - 1)(\sec x + 1) = \tan^2 x$

8. _____

9. (3 points) What is the reference angle for the angle $\theta = 405^\circ$?

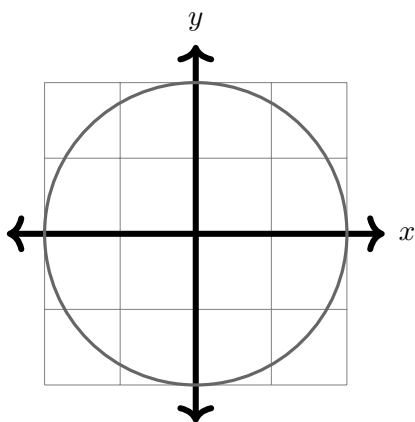
9. _____

10. (3 points) What is the reference angle for the angle $\theta = -\frac{\pi}{3}$?

10. _____

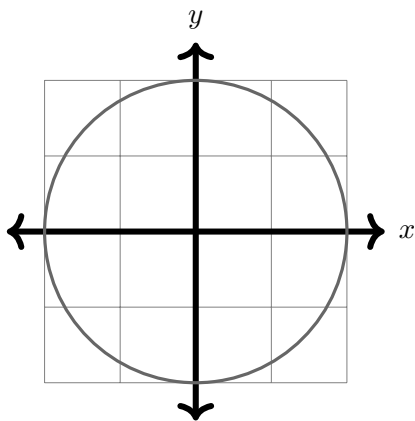
11. Draw the angle in standard position using the unit circle below and find its reference angle in degrees for the indicated angles below:

(a) (3 points) $\frac{2\pi}{3}$



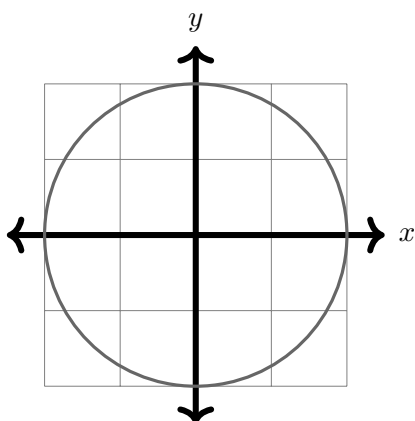
(a) _____

(b) (3 points) $-\frac{\pi}{4}$



(b) _____

(c) (3 points) $\frac{23\pi}{6}$



(c) _____