

ARC 190: Review for Quiz 2

Practice Quiz A

1. Simplify: $\frac{\sqrt{x^4y^2}}{xy^{-2}}$

2. Solve the following equation:

$$x^{2/3} = 9$$

3. Evaluate the following: $\log_2(8)$

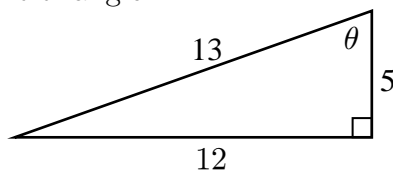
4. Solve the following equation:

$$3^x = 5$$

5. If $f(x) = \sin x$ and $g(x) = 3x + \sqrt{x}$, what is $f(g(x))$?

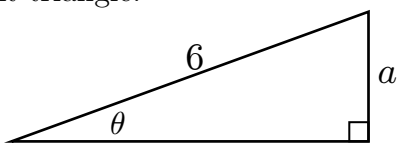
6. Convert $\frac{\pi}{10}$ radians to degrees.

7. Consider the following right triangle:



What is $\cos \theta$?

8. Consider the following right triangle:



If $\theta = \frac{\pi}{6}$ radians, what is a ?

9. Use the unit circle to evaluate the following: $\tan\left(\frac{\pi}{3}\right)$

10. If $\sin \theta = \frac{1}{2}$, use the unit circle to determine all possible values of θ ? Give the exact answers.

Practice Quiz B

1. Simplify: $\frac{x(x^2y^3)^2}{x^{-1}y^4}$

2. Solve the following equation:

$$x^{-1/2} = 2$$

3. Evaluate the following: $\log_9(3)$

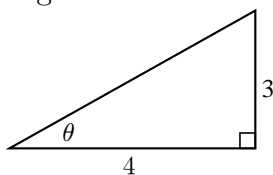
4. Solve the following equation:

$$2e^x = 8$$

5. If $f(x) = \sqrt{x}$ and $g(x) = x^3 + 2x$, what is $g(f(x))$?

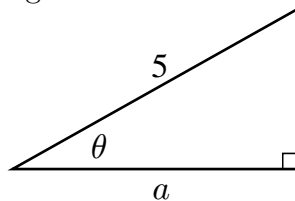
6. Convert 20° to radians. Give your answer as a fraction involving π .

7. Consider the following right triangle:



What is $\sin \theta$?

8. Consider the following right triangle:



If $\theta = \frac{\pi}{4}$ radians, what is a ?

9. Use the unit circle to evaluate the following: $\sec\left(\frac{5\pi}{6}\right)$

10. If $\cos \theta = -\frac{\sqrt{3}}{2}$, use the unit circle to determine all possible values of θ ? Give the exact answers.