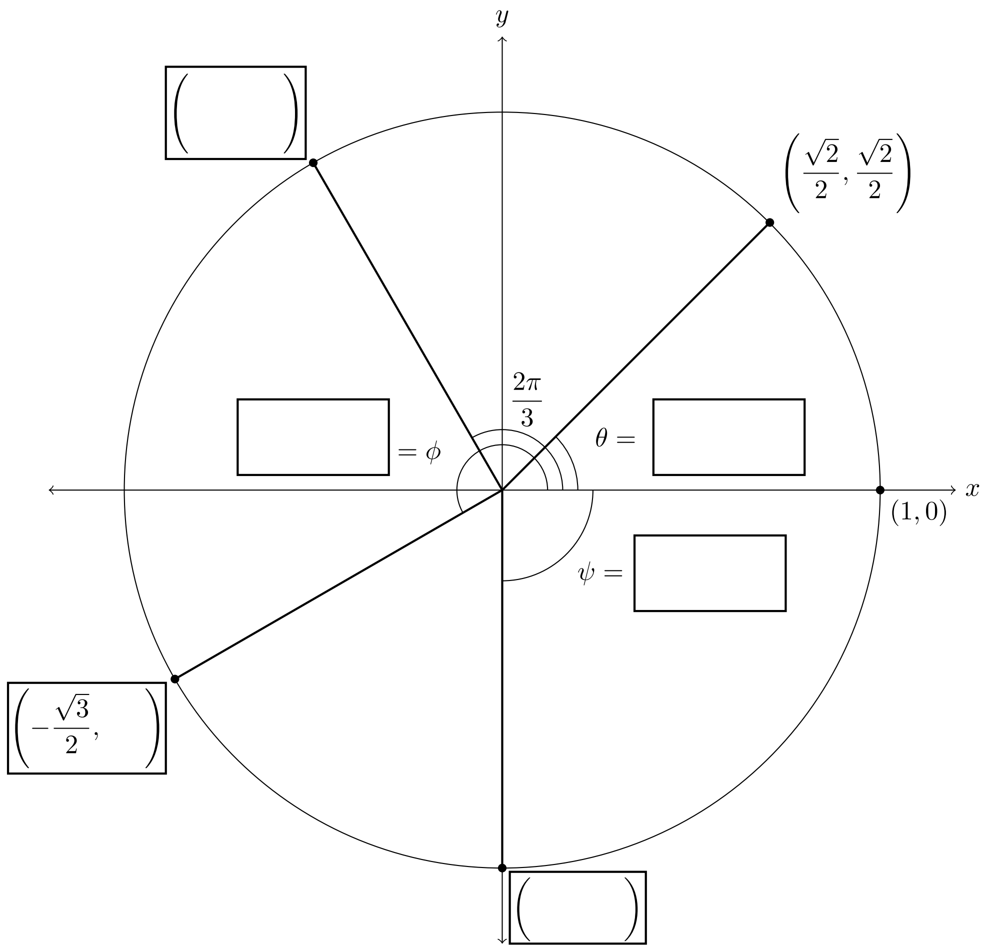
This review is neither for credit nor comprehensive; however, you are assumed to know this material for tests.

Name: ______________________________

1. Fill in the values on the unit circle.



2. Use even/odd properties and reciprocal and quotient identities to simplify.

(a) $\boxed{} = \dfrac{1}{\sin(x)}$

(b) $\boxed{} = \dfrac{1}{\cos(-x)}$

(c) $\boxed{} = \dfrac{1}{\tan x}$

(d) $\boxed{} = \dfrac{\cot(x)}{\sec(-x)}$

(e) $\boxed{} = \dfrac{1}{\sec x}$

(f) $\boxed{} = \dfrac{1}{\csc(-x)}$

(g) $\boxed{} = \dfrac{1}{\cot(-x)}$

(h) $\boxed{} = \dfrac{\tan(-x)}{\sin(-x)}$

3. Use the sum and difference identities to evaluate exactly.

(a) $\boxed{} = \sin\left(\frac{\pi}{3} + \frac{\pi}{4}\right)$

(b) $\boxed{} = \sin\left(\frac{\pi}{4} - \frac{5\pi}{6}\right)$

(c) $\boxed{} = \sin\left(\frac{5\pi}{12}\right)$

(d) $\boxed{} = \tan\left(\frac{5\pi}{12}\right)$

(e) $\boxed{} = \cos\left(\frac{\pi}{3} + \frac{\pi}{4}\right)$

(f) $\boxed{} = \cos\left(\frac{\pi}{4} - \frac{5\pi}{6}\right)$

(g) $\boxed{} = \cos\left(\frac{5\pi}{12}\right)$

(h) $\boxed{} = \tan\left(\frac{7\pi}{12}\right)$

4. Use the cofunction identities to remove the phase shift.

(a) $\boxed{} = \sin\left(\frac{\pi}{2} - x\right)$

(b) $\boxed{} = \cos\left(\frac{\pi}{2} - x\right)$

(c) $\boxed{} = \sec\left(\frac{\pi}{2} - x\right)$

(d) $\boxed{} = \csc\left(\frac{\pi}{2} - x\right)$

(e) $\boxed{} = \tan\left(\frac{\pi}{2} - x\right)$

(f) $\boxed{} = \cot\left(\frac{\pi}{2} - x\right)$

5. Use the half angle identities to evaluate exactly.

(a) $\boxed{} = \sin\left(\frac{\pi}{12}\right)$

(b) $\boxed{} = \cos\left(\frac{\pi}{12}\right)$

(c) $\boxed{} = \tan\left(\frac{\pi}{12}\right)$

(d) $\boxed{} = \sin\left(\frac{\pi}{8}\right)$

(e) $\boxed{} = \cos\left(\frac{\pi}{8}\right)$

(f) $\boxed{} = \tan\left(\frac{\pi}{8}\right)$

6. Use the product-to-sum identities to evaluate exactly.

(a) $\boxed{} = \sin\left(\frac{7\pi}{12}\right)\sin\left(\frac{\pi}{12}\right)$

(b) $\boxed{} = \cos\left(\frac{7\pi}{12}\right)\cos\left(\frac{\pi}{12}\right)$

(c) $\boxed{} = \sin\left(\frac{7\pi}{12}\right)\cos\left(\frac{\pi}{12}\right)$

(d) $\boxed{} = \sin\left(\frac{5\pi}{12}\right)\sin\left(\frac{\pi}{12}\right)$

(e) $\boxed{} = \cos\left(\frac{5\pi}{12}\right)\cos\left(\frac{\pi}{12}\right)$

(f) $\boxed{} = \cos\left(\frac{5\pi}{12}\right)\sin\left(\frac{\pi}{12}\right)$

7. Use the sum-to-product identities to evaluate exactly.

(a) $\boxed{} = \sin\left(\frac{7\pi}{12}\right) + \sin\left(\frac{\pi}{12}\right)$

(b) $\boxed{} = \sin\left(\frac{5\pi}{12}\right) - \sin\left(\frac{\pi}{12}\right)$

(c) $\boxed{} = \cos\left(\frac{7\pi}{12}\right) + \cos\left(\frac{\pi}{12}\right)$

(d) $\boxed{} = \cos\left(\frac{5\pi}{12}\right) - \cos\left(\frac{\pi}{12}\right)$

8. Use the log sum identity to simplify.

(a) $\boxed{} = \ln(5) + \ln(7)$ (c) $\boxed{} = \log(x) + \log(y)$

(b) $\boxed{} = \ln(12) - \ln(4)$ (d) $\boxed{} = \log(a) - \log(b)$

9. Use the log power identity to simplify.

(a) $\boxed{} = \ln(3^5)$ (c) $\boxed{} = \log(16 + 9)$

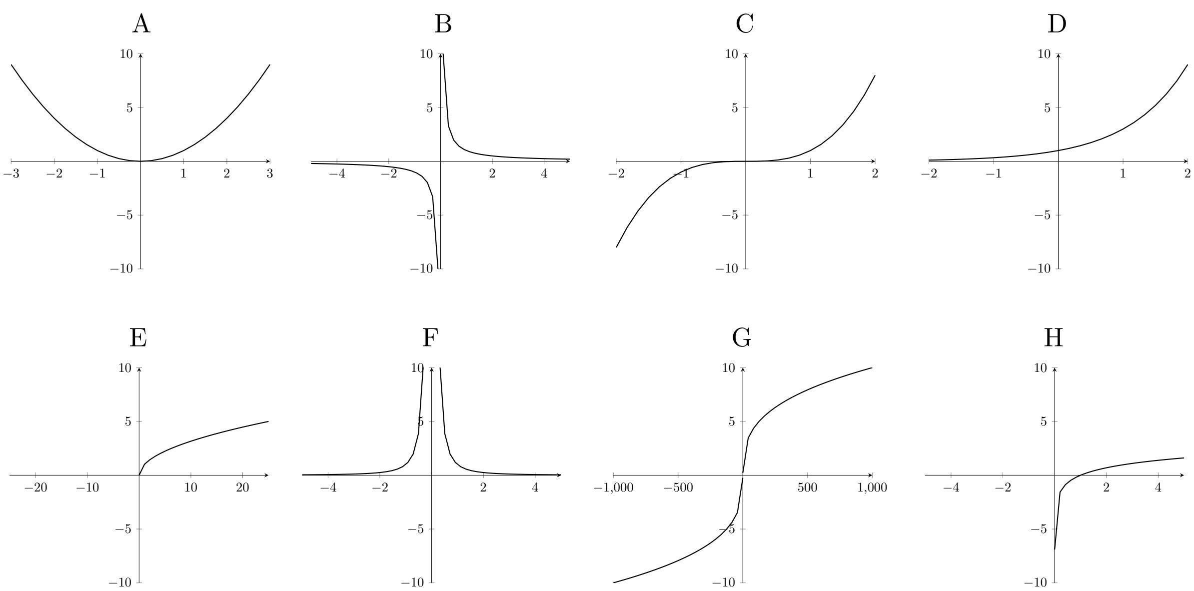
(b) $\boxed{} = \ln(625)$ (d) $\boxed{} = \log(b^a)$

10. Use the log change of base formula to simplify.

(a) $\boxed{} = \dfrac{\ln(25)}{\ln(5)}$ (c) $\boxed{} = \log_3(10)\log_{10}(3)$

(b) $\boxed{} = \dfrac{\ln(17)}{\ln(6)}$ (d) $\boxed{} = \log_b(c)\log_c(b)$

11. Match each graph to its equation.



(a) $\boxed{}$ $f(x) = \sqrt{x}$ (c) $\boxed{}$ $f(x) = \dfrac{1}{x}$ (e) $\boxed{}$ $f(x) = \sqrt[3]{x}$ (g) $\boxed{}$ $f(x) = \dfrac{1}{x^2}$

(b) $\boxed{}$ $f(x) = \ln x$ (d) $\boxed{}$ $f(x) = 3^x$ (f) $\boxed{}$ $f(x) = x^2$ (h) $\boxed{}$ $f(x) = x^3$