Quiz 1

● Graded

Student

Colin Cano

Total Points

8 / 10 pts

Question 1

Trig

2 / 2 pts

✔ **– 0 pts** Correct: $1, 0, \frac{\sqrt{3}}{2}, \frac{1}{2}$

– 0.5 pts $sin(\frac{\pi}{2}) = 1$ is incorrect.

– 0.5 pts $cos(\frac{\pi}{2}) = 0$ is incorrect.

– 0.5 pts $sin(\frac{\pi}{3}) = \frac{\sqrt{3}}{2}$ is incorrect.

– 0.5 pts $cos(\frac{\pi}{3}) = \frac{1}{2}$ is incorrect.

Question 2

Function

3 / 3 pts

✔ **– 0 pts** Correct: 1, 1

– 0.5 pts Student did not attempt to calculate 2^0.

– 1 pt $2^0 = 1$ is calculated incorrectly.

– 0.5 pts Student did not attempt to calculate $2^x = 2$.

– 1 pt $2^x = 2$ implies $x = 1$ is calculated incorrectly.

Question 3

Exponents

1 / 3 pts

– 0 pts Correct: $x^{12}, x^4y + x^2y^3$

✔ **– 1 pt** Exponent rule $(x^a)^b = x^{ab}$ is applied incorrectly or not applied at all.

✔ **– 1 pt** Exponent rule $x^a x^b = x^{a+b}$ is applied incorrectly or not applied at all.

– 1 pt Exponent rule $\frac{x^a}{x^b} = x^{a-b}$ is applied incorrectly or not applied at all.

– 0.5 pts Algebra mistake was made.

Question 4

Logs

2 / 2 pts

✔ **– 0 pts** Correct: $\ln(x^{\frac{1}{2}}y^3) = \ln(\sqrt{x}\,y^3)$

– 1 pt Coefficients outside the logs were not condensed into powers inside the log correctly.

– 1 pt Addition between the logs was not condensed into multiplication inside the log correctly.

– 0.5 pts Algebra mistake was made.

MATH:1850 **Quiz 1** Fall 2024
TA:

Name: Colin Cano

1. Write the following as fractions:

$sin(\frac{\pi}{2}) =$ 1

$cos(\frac{\pi}{2}) =$ 0

$sin(\frac{\pi}{3}) =$ $\frac{\sqrt{3}}{2}$

$cos(\frac{\pi}{3}) =$ $\frac{1}{2}$

2. Consider the function $f(x) = 2^x$. $2^0 = 1$

(a) State the value: $f(0) =$ 1

(b) For what value of x does $f(x) = 2$?

$2^x = 2$ $f(x) = 2$ when $x = 1$
$2^1 = 2$

3. Simplify the following:

$x^2(x^5)^2 =$ $2x^{27}$

$\frac{x^5y+x^3y^3}{x} =$ $x^4y + x^2y^3$

4. Write the following in condensed form:

$\frac{1}{2}\ln(x) + 3\ln(y) =$

$\ln\left(x^{1/2}y^3\right)$