

0. State: ##.First.Last.T2 <YourEmailAddress> and put it below and the page number on each sheet of paper.

00. By my initials, I swear, with this test/quiz, _____
 no one has helped me, I have helped no one, I have not used any artificial intelligence tool/webpage.
 000. I used these web pages/textbook pages to complete this test.

0000. WORTH POINTS ON THE TEST! Don't forget to title each page and rename and attach your files, using email subject line ##.First.Last.T2, mailed to your class mailbox at blue@mathnstuff.com or purple@mathnstuff.com by the Friday night deadline. **Go with confidence.**

1. SHOW WORK. Circle answer.

Write the tangent line to $f(x) = (3x)/\cos(x)$ when x equals π (π).

2. State the requested derivatives of $y = \sin(x)$.

a. $\frac{dy}{dx}$ _____

e. $\frac{d^5y}{dx^5}$ _____

i. $\frac{d^9y}{dx^9}$ _____

b. $\frac{d^2y}{dx^2}$ _____

f. $\frac{d^6y}{dx^6}$ _____

j. $\frac{d^n[\sin(x)]}{dx^n}$

c. $\frac{d^3y}{dx^3}$ _____

g. $\frac{d^7y}{dx^7}$ _____

where n is a multiple of 4

d. $\frac{d^4y}{dx^4}$ _____

h. $\frac{d^8y}{dx^8}$ _____

To state this answer, write this text.	
answer	text
$\sqrt{2}$	sqrt(2)
$\frac{\sqrt{3}}{2}$	sqrt(3)/2
$\sqrt{x^2+1}$	sqrt(x^2 + 1)
$\sqrt[3]{x^5}$	$x^{1(5/3)}$
π	(pi)
∞	infinity
does not exist	does not exist
\geq	>=
\leq	<=
\neq	not =

3. Show work. Use the Quotient Rule, to show $D_x(\sec(x)) = \sec(x)\tan(x)$

Most basic trig identities are found at: www.mathnstuff.com/math/spoken/here/2class/330/gif/cheat1.gif

Calculator websites are found on your 10/4/24 test page and at: www.mathnstuff.com/math/calc/calc1.htm