1.) (10 pts. each) Differentiate each function. DO NOT SIMPLIFY ANSWERS.

a.)
$$y = \tan^4(\csc(\cos 4x))$$

b.)
$$y = 3 + \sqrt{\frac{x}{4 - x}}$$

2.) (10 pts.) Solve
$$f'(x) = 0$$
 for x .

a.)
$$f(x) = x^{10}(5x - 11)^4$$

b.)
$$f(x) = \sin x - (1/2)x$$
 for x in $[0, 2\pi]$