

Test correction instructions:

Learn from your mistakes! Understand what you did wrong.

- 1. On lined paper, for each problem you didn't earn a "10" on:
 - a. Write about your misconception**
 - b. Show how to "get" the correct answer**
 - c. Provide the actual, correct answer****

- 2. Staple this, with your name at the top, to your test. Put it on that desk over there by the end of the hour.**

(18) $2x - 1 - \sin x = 0$

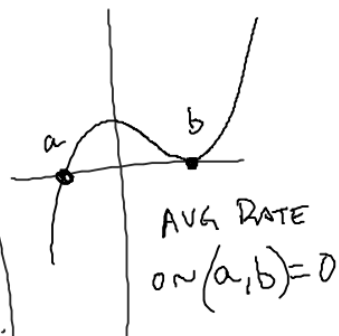
$$f(0) = -1 < 0$$

$$f(\pi/2) = \pi - 1 - 1 = 1.14 > 0$$

BY THE INTERMEDIATE VALUE THEOREM,
 $f(x)$ MUST HAVE AT LEAST ONE ROOT ON $(0, \pi/2)$.

ONLY ONE ROOT,
BECAUSE IF THERE
WERE MORE THAN
ONE ...

$(x) \sqrt{x}$



BY MVT, THERE
MUST BE A PLACE
WHERE $f'(x) = 0$

←

$$y = 2x - 1 - \sin x$$

$$y' = 2 - \cos x$$

$$0 = 2 - \cos x$$

$$-2 = -\cos x$$

$$2 = \cos x$$

THERE IS

NO PLACE WHERE

THE DERIVATIVE EQUALS ZERO.

NO
SOLUTION!