12-21-05 WED.

1st AP B4 (86) A

$f(x) = x^{\frac{1}{2}}$

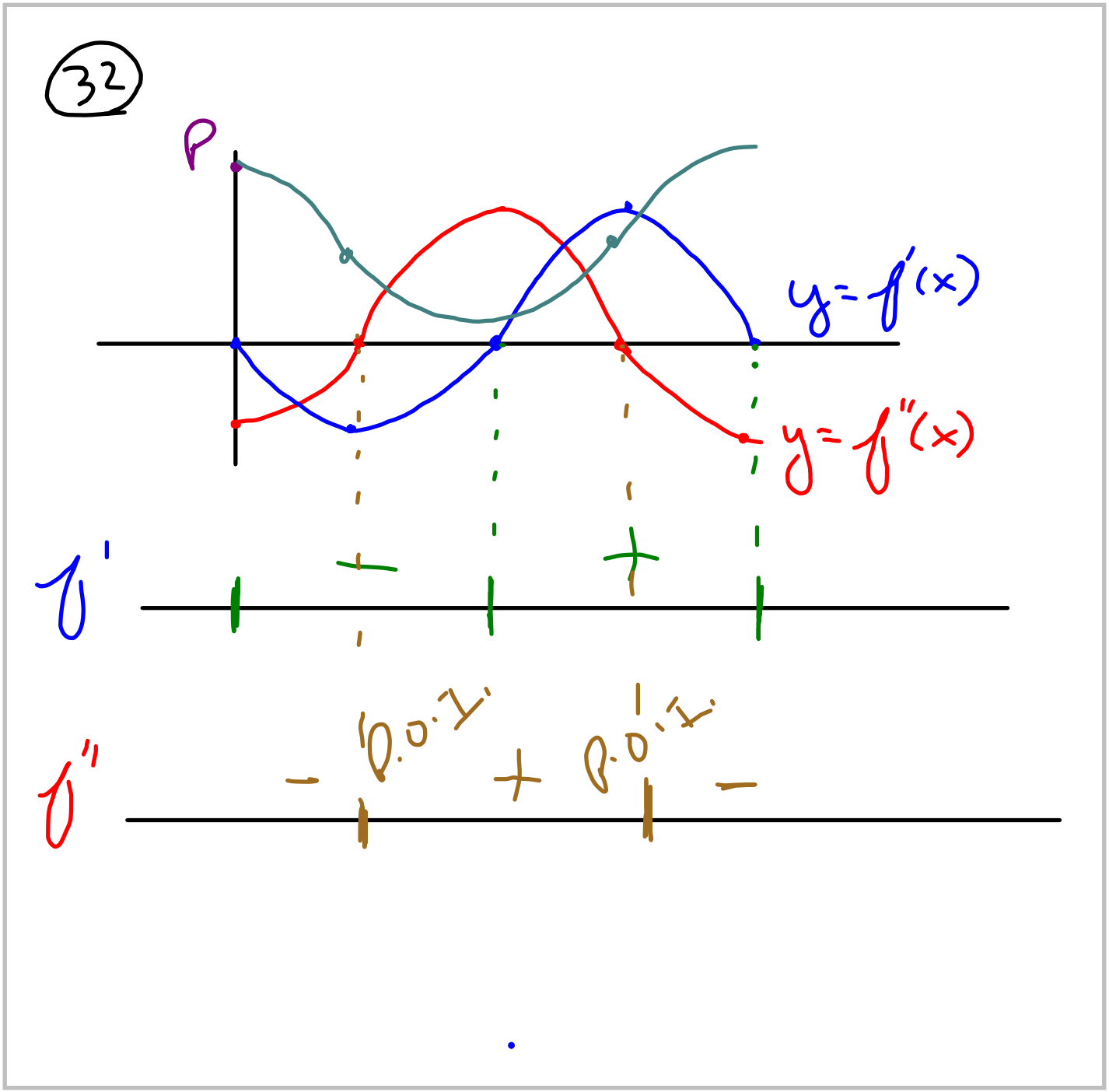
2nd (32)

R.O.C. $f'(x) = \frac{1}{2}x^{-\frac{1}{2}} = \frac{1}{2\sqrt{x}}$

$f'(1) = \frac{1}{2}$

$f'(c) = 1 = \frac{1}{2\sqrt{c}}$ Solve...

$c = \frac{1}{4}$


32
P
y = f'(x)
y = f''(x)
f'
f''
P.O.I.
P.O.I.

(38) $p(t) = 6 - 2t - t^2$

a) vel. b) acc. c) DESCRIBE

a) $V(t) = -2t - 2 = 0$

$t = -1$

b) $a(t) = -2$

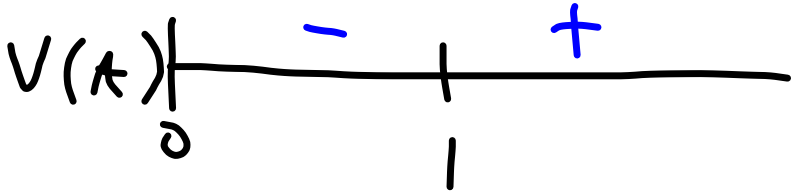
c) STARTS AT POSITION 6 WHEN $t = 0$ AND MOVES TO LEFT ALWAYS.

(39) $s(t) = t^3 - 3t + 3$

a) vel. b) acc. c) DESCRIBE

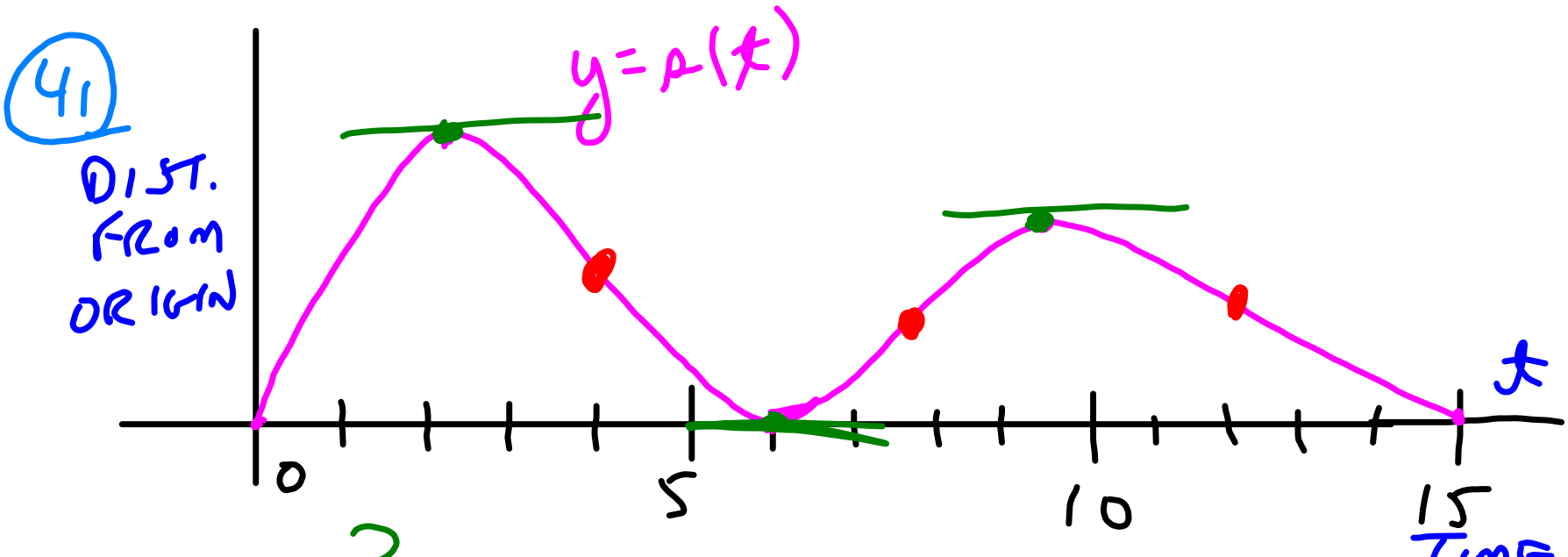
a) $v(t) = \underline{3t^2 - 3} = 0$ $t = \pm 1$

b) $a(t) = 6t$



c) STARTS AT POSITION 3, MOVES LEFT UNTIL $t = 1$, IT IS AT POSITION 1, THEN IT MOVES RIGHT FOREVER.

41



a) vel = 0?

$t = 2, 6, 9.8$

b) acc = 0? P.O.I.

$t = 4, 8, 11\ (12)$?

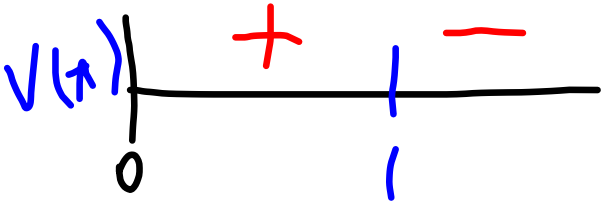
P. 205 (40) $p(t) = 3t^2 - 2t^3$

a) vel b) acc. c) DESCRIBE

a) $v(t) = 6t - 6t^2 = 0$

$6t(1-t) = 0$

$t = 0$ or $t = 1$



b) $a(t) = 6 - 12t$

c) IT BEGINS AT POSITION 0, MOVES RIGHT TO POSITION 1, WHEN $t = 1$, THEN MOVES LEFT THEREAFTER.

TEST THUR: 4.1-4.3 50 POINTS

- COOL MINT GREEN
  AP PRACTICE EXAM THRU 4.2
- FOLLOW DIRECTIONS!
- CORRECT USING VIDEOS
- SOLUTIONS TO #16 HAS AN ERROR IN FACTORING ON THE LAST PART.
- 20 POINTS – TURN IN 01-03-06