

# MA 15910      Exam 2 Answers      Fall 2015

<b>Problem</b>	Test 01 green	Test 02 orange	<b>Actual Answer</b>
1	A.	D.	As 3 to 5 items are sold, the profit is increasing by about \$2600 per item.
2	B.	E.	$f'(x) = \lim_{h \rightarrow 0} \left( \frac{-x^2 - 2xh - h^2 + 2x + 2h - 7 - (-x^2 + 2x - 7)}{h} \right)$
3	E.	E.	None of the above. ( $y = \frac{1}{2}x + 2$ )
4	A.	C.	\$0.44 per hamburger
5	B.	B.	(0, -1), (-1, 0)
6	C.	A.	The slope is between -6 and -2. (It is $m = -5$ .)
7	D.	A.	$g'(x) = \frac{5}{4}x^{3/2} - \frac{15}{4}x^{1/2} - \frac{7}{4}x^{-1/2} - \frac{3}{4}x^{-3/2}$
8	D.	E.	$-\frac{13}{16}$
9	D.	C.	$x = -\sqrt{\frac{3}{2}}, 0, \sqrt{\frac{3}{2}}$
10	D.	A.	$\frac{dy}{dx} = 3(4x - 5)(2x^2 - 5x + 1)^2$
11	E.	D.	$m = \frac{-7}{50}$
12	C.	E.	2.44 m/sec
13	E.	E.	The solution is greater than 2. ( $x = 2.25$ )
14	A.	D.	\$4806
15	E.	B.	$4(6x^5 + 5)^2(96x^5 + 5)$