

Fall 2011, MA 15200, Answers on Exam 3

Problem Number	Form A	Form B	Actual Answer
1)	<i>B</i>	<i>E</i>	$m = -\frac{2}{3}, \quad m_{\perp} = \frac{3}{2}$
2)	<i>C</i>	<i>C</i>	
3)	<i>E</i>	<i>A</i>	$x + 2y - 12 = 0$
4)	<i>B</i>	<i>D</i>	Between 20.5 and 22.5 years (21 years)
5)	<i>A</i>	<i>C</i>	The diameter of the water pipe is at least 38 cm, but less than 44 cm. (40 cm)
6)	<i>E</i>	<i>D</i>	$(g \circ f)(x) = \frac{5}{2x-1}$
7)	<i>B</i>	<i>D</i>	$f^{-1}(x) = \frac{8}{x+2}$
8)	<i>E</i>	<i>B</i>	\$5747
9)	<i>D</i>	<i>B</i>	The percentage of men who agreed with the statement is approximately 27.5%.
10)	<i>E</i>	<i>A</i>	$\ln\left(\frac{x^4}{y^2 z^6 \sqrt{3+x}}\right)$
11)	<i>D</i>	<i>B</i>	113,000
12)	<i>D</i>	<i>E</i>	The solution is at least 20. (27)
13)	<i>C</i>	<i>A</i>	$y = -2$
14)	<i>A</i>	<i>A</i>	Between 225 and 250 calories (246)
15)	<i>A</i>	<i>C</i>	(2, -3)

