

MA 15200X, Answers Exam 3, Fall 2008

- 1) The volume is 39 or more cubic feet. (40 cubic feet)
- 2) Range: $[-3, 5]$, $f(-2) - f(4) = 8$
- 3) $f(7) = 3$, $g(2)$ is not defined
- 4) II and III only
- 5) $9x^2 - 30x + 26$
- 6) $f(x) = x^3$, $g(x) = 2x - 3$
- 7) $g^{-1}(x) = \frac{3x}{1-x}$
- 8) Range: $(-\infty, -1) \cup (-1, \infty)$
- 9) I, II; $(-2, 9)$
- 10) 131 cattle
- 11) $\log_p(x+6) = 2n$
- 12) $y = 0.2553$, $x = 1.5008$
- 13) $\log_b 15 = 1.9535$
- 14) There are two solutions, both positive.
- 15) $x = \frac{2}{5}$