

Algebra II Pre-AP
Answers to Review for Spring Semester Exam

1) 5.5		2) $(-3,0), (3,0), (-1.5,0), (0,-27)$ As $x \rightarrow -\infty, f(x) \rightarrow -\infty$ As $x \rightarrow \infty, f(x) \rightarrow \infty$	
3) $(-1.5,0), (1,0), (2,0); p(x) = (2x+3)(x-1)^2(x-2)$			
4) Inc on $(-\infty, -3.610) \cup (0.277, \infty)$; dec on $(-3.610, 0.277)$			
5) $x^3 + 6x^2 + 7x - 2 = 0$		6) $\{\pm 2i, 3 \pm \sqrt{5}\}$	
7a) $V(x) = x(15 - 2x)(20 - 2x)$		7b) $D = (0, 7.5)$	
7c) $x \approx 2.828$ in		7d) 0.714" or 5.667"	
8) {11}	9) $\left\{\pm \frac{125}{343}\right\}$	10) $\left\{\frac{11}{4}\right\}$	11) $f(x) = \frac{1}{9}(3)^x$
12) $\left\{-\frac{3}{16}\right\}$	13) $\left\{\frac{3}{8}\right\}$	14) $\left\{\frac{3}{2}\right\}$	15) $\log_2 \frac{8\sqrt{x}}{y^3}$
16) $1 + \log x + 2\log y - \log 7 - \log z$		17) $\left\{-\frac{5}{7}\right\}$	18) $\frac{\ln 100}{\ln 2.5}$
19) $\{\ln 5\}$			