

H. Algebra II Review KEY

Part 2 - Quadratic

2a1] [end result...] $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

2b1] $\frac{1}{6}, \frac{5}{3}$ 2b2] $-\frac{3}{2}, \frac{1}{8}$

2b3] $-3 \pm \sqrt{5}$ 2b4] $\frac{5 \pm i\sqrt{7}}{2}$

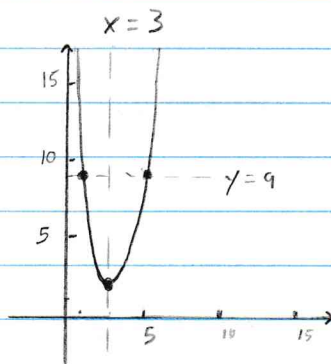
2b5] $\frac{1 \pm i\sqrt{17}}{5}$ 2b6] $\frac{-3 \pm \sqrt{19}}{4}$

2c1] $(-4, -10)$ minimum

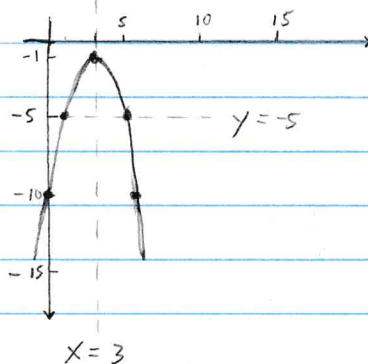
2c2] $(\frac{-3}{2}, \frac{49}{4})$ maximum

2c3] $(\frac{3}{2}, -\frac{5}{2})$ minimum

2d1] vertex: $(3, 1)$
 $f(1) = 9 \Rightarrow (1, 9)$
 $f(5) = 9 \Rightarrow (5, 9)$
 $f(0) = 14 \Rightarrow (0, 14)$



2d2] vertex: $(3, -1)$
 $f(1) = -5$
 $f(5) = -5$
 $f(0) = -10$



2e1] $f(x) = \frac{14}{3}x^2 - \frac{109}{6}x + \frac{1}{2}$