

H. Algebra II Review KEY

Part 9 - Trigonometric Identities and Logarithm Rules

$$9a1] \frac{1}{4}(\sqrt{2} - \sqrt{6})$$

$$9a2] -\frac{1}{2}(\sqrt{2} - \sqrt{2})$$

$$9b1] \frac{\sqrt{17}}{17}$$

$$9b3] -\frac{8}{17}$$

$$9b2] -4 \frac{\sqrt{17}}{17}$$

$$9b4] \frac{15}{17}$$

$$9b5] -\frac{8}{17}$$

$$9c1] \log x + \frac{1}{3} \log(1-x)$$

$$9c2] 2 \log_5 x - \log_5 y - 3 \log_5 z$$

$$9c3] \ln 4 + 3 \ln x - 2 \ln y - 5 \ln(x-1)$$

$$9c4] \log \left(\frac{8x^2}{\sqrt{x+4}} \right)$$

$$9c5] \log_5 \left(\frac{x-1}{x+1} \right)$$

$$9c6] \ln \left(\frac{a^2 - b^2}{cd} \right)$$