$\begin{array}{l} {\rm Quiz}\ 5\ {\rm Form}\ B\\ {\rm Oct}\ 30,\ 2017 \end{array}$ 

1. Let  $y_1$  and  $y_2$  be solutions of ty'' + 2y' + cos(t)y = 0; t > 0. Let W(t) be the Wronskian of  $y_1(t)$  and  $y_2(t)$ . Given that W(1) = 5, find W(t).

W(t) =\_\_\_\_\_

[10] 2.) Write  $y = \sqrt{3}cos(5t) - sin(5t)$  in the form  $y = Rcos(\omega t - \delta)$ . Determine the period, phase, and amplitude.

*y*=\_\_\_\_\_

period =\_\_\_\_\_, phase = \_\_\_\_\_, and amplitude = \_\_\_\_\_.