Math 321   Class Exercises 5/10/2017   **Names:**

1. $y'' + 5y' + 4y = t^2 + 3t$ Forced?   y   n   System damping: _____

   Response has transient part?   y   n   steady-state part?   y   n

   Form of response (solution): _____

2. $y'' + 5y' + 4y = 0$ Forced?   y   n   System damping: _____

   Response has transient part?   y   n   steady-state part?   y   n

   Form of response (solution): _____

3. $y'' + 4y = 5\cos 5t$ Forced?   y   n   System damping: _____

   Response has transient part?   y   n   steady-state part?   y   n

   Form of response (solution): _____

4. $y'' + 2y' + 5y = \sin t$ Forced?   y   n   System damping: _____

   Response has transient part?   y   n   steady-state part?   y   n

   Form of response (solution): _____

5. $y'' + 4y' + 9y = 0$ Forced?   y   n   System damping: _____

   Response has transient part?   y   n   steady-state part?   y   n

   Form of response (solution): _____

6. $y'' + 9y = 0$ Forced?   y   n   System damping: _____

   Response has transient part?   y   n   steady-state part?   y   n

   Form of response (solution): _____

   There are more on the back!

7. $y''+6y'+9y = 4\sin 3t$ Forced? y n   System damping: _____

Response has transient part? y n   steady-state part? y n

Form of response (solution): _____

8. $y''+4y'+5y = 4e^{-3t}$ Forced? y n   System damping: _____

Response has transient part? y n   steady-state part? y n

Form of response (solution): _____

9. $y''+y = 6$ Forced? y n   System damping: _____

Response has transient part? y n   steady-state part? y n

Form of response (solution): _____