

**Math.240, QUIZ5**

**Surname & Name:**

**Question: Read the statement " A general solution of  $y'' + y = x$  is**

**$y = c_1 \cos x + c_2 \sin x + c_3 x$  where**

**$c_1, c_2$  ,and  $c_3$  are arbitrary constants."**

**Is it true? Explain your answer clearly.**

**We know that a general solution of a second-order, linear o.d.e. should contain exactly two constants to combine linearly independent solutions of the corresponding homogeneous equation.**

**The given statement is wrong.**