

Name: **KEY**

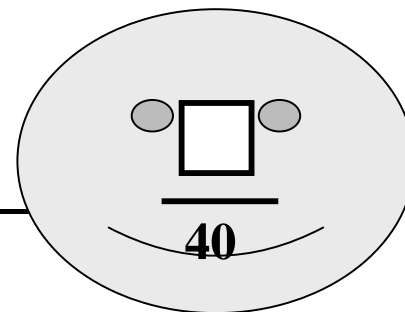
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MATH 202

Term 052

QUIZ 1 (form A)



State the order of the given differential equation.

Determine whether the equation is ODE or PDE.

Determine whether the equation is linear or nonlinear.

	Equation	pts	Type		Linearity			Order
1	$\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = 0$	2 3 3	ODE	PDE	linear	nonlinear		2
2	$\frac{d^2 u}{dr^2} + \frac{du}{dr} + u = \cos(r + 1)$ <small>HW (4 / p10)</small>	2 3 3	ODE	PDE	linear	nonlinear		2
3	$(\sin \theta)y^m - (\cos \theta)y' = 2e^y$ <small>HW (7 / p10)</small>	2 3 3	ODE	PDE	linear	nonlinear		1
4	$xdy + ydx = 0$	2 2 2	ODE	PDE	linear in x	linear in y	non linear	1
5	$\frac{\partial^3 u}{\partial x^3} + \left(\frac{\partial u}{\partial y}\right)^2 + u = 0$	2 3 3	ODE	PDE	linear	nonlinear		3

Say a prayer and GOOD luck

