KFUPM - Department of Mathematics and Statistics - Term 181 **MATH 202 QUIZ # 1 Code 1** (Duration = 20 minutes)

NAME:	ID:	Section:

Exercise 1 (5 points)

Solve the differential equation $(xy^2 - x)dx - (x^2y + y)dy = 0$ and find all singular solutions if any.

Exercise 2 (5 points) Solve the differential equation $xy' - 2y = x^4 \cos(x)$ (show all your steps)

KFUPM – Department of Mathematics and Statistics – Term 181 MATH 202 QUIZ # 1 Code 2 (Duration = 20 minutes)

NAME:	ID:	Section:

Exercise 1 (5 points)

Solve the differential equation $(xy^2 - 4x)dx - (x^2y + y)dy = 0$ and find all singular solutions if any.

Exercise 2 (5 points) Solve the differential equation $xy' - 2y = x^4 e^x$ (show all your steps)