

KFUPM – Department of Mathematics and Statistics – Term 162

**MATH 202**

**QUIZ # 1 Code 1** (Duration = 20 minutes)

NAME: \_\_\_\_\_ ID: \_\_\_\_\_ Section: \_\_\_\_\_

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**Exercise 1** (5 points)

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

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**Exercise 2** (5 points)

Solve the differential equation  $xy' + y = x \sin x$  (**show all your steps**)

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**QUIZ # 1 Code 2** (Duration = 20 minutes)

NAME: \_\_\_\_\_ ID: \_\_\_\_\_ Section: \_\_\_\_\_

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**Exercise 1** (5 points)

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

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**Exercise 2** (5 points)

Solve the differential equation  $xy' + y = x \cos x$  (**show all your steps**)