

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_ Serial No.: \_\_\_\_\_  
Instructor: M. Z. Abu-Sbeih Math - 132.1 Quiz No. 4 Date: 12-4-2004.

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Problem 1: Approximate  $e^{0.1}$

Problem 2: A rectangular plot of area  $2000 \text{ ft}^2$  is to be fenced and divided into two equal rectangular plots with a fence as shown in the figure. If the side fence (along the  $x$ 's) cost 4 SR per foot, while the cost of the length (along the  $y$ 's) is 3 SR per foot. Find the dimensions of the plot which will minimize the cost of the fence.

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_ Serial No.: \_\_\_\_\_  
Instructor: M. Z. Abu-Sbeih Math - 132.2 Quiz No. 4 Date: 12-4-2004.

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Problem 1: Use differentials to approximate  $\sqrt[4]{17}$ .

Problem 2: A rectangular plot of area  $2000 \text{ ft}^2$  is to be fenced and divided into two equal rectangular plots with a fence as shown in the figure. If the side fence (along the x's) cost 4 SR per foot, while the cost of the length (along the y's) is 3 SR per foot. Find the dimensions of the plot which will minimize the cost of the fence.