

KFUPM  
Mathematics & Statistics

Term 161  
MATH 101

Date: 4/12/2016  
Duration: 15 minutes

Quiz# 5

Name:

ID #:

Section:

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1. Two cars start moving from the same point. One travels south at 30 km/h and the other travels west at 72 km/h. At what rate is the distance between the cars increasing two hours later?

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2. Use linear approximation to estimate  $\cos(29^\circ)$

3. Use differentials to estimate  $e^{0.1}$

4. The radius of a circular disk is given as 24 cm with a maximum error measurement of 0.2 cm.
- Estimate the maximum error in the calculated area of the disk?
  - Calculate the relative error?