

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICS AND STATISTICS
Term 141

STAT 319 Statistics for Engineers and Scientists

Quiz #1

Thursday September 18, 2014

Name:

ID#

1) A lot of 100 semiconductor chips contains 25 that are defective. Two are selected randomly without replacement, what is the probability that

a) The first one selected is defective?

b) The second one selected is defective?

c) Both chips are defective?

2) The analysis of shafts for a compressor is summarized by conformance to specifications

Surface Finish		Roundness Conforms	
		Yes	No
Conforms	Yes	345	5
	No	12	8

If a shaft is selected at random, what is the probability that it

a) Conforms to surface finish requirements?

b) Conforms to surface finish or does not conform to roundness requirements?

c) If a customer for these shafts demands 95% conformance, can the shaft manufacturer meet this demand? Justify your answer.