

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS

Term 172
STAT 319 Quiz #1

Name: _____ ID #: _____

1) Two events A and B are such that $P(A) = 0.4$, $P(B) = 0.5$, $P(A \cup B) = 0.8$. Find $P(A \cap B')$.

2) In the manufacturing of a chemical adhesive, 2% of all batches have raw materials from two different lots, and 40% of those require additional processing to achieve the required viscosity. Only 5% of batches with material from a single lot require additional processing to achieve the required viscosity. Let A be the event that a batch is formed from two different lots, and B denote the event that a lot requires additional processing. Find

a) $P(A \cap B)$

b) $P(B)$