King Fahd University Of Petroleum & Minerals
Math 131 - Term 032

Quiz #4   Section: 1, 5 & 6

Name: ID: Serial:

Q1(5 Points): If one card is selected randomly from an ordinary deck which consists of 52 cards , find the probability that

   a. The card is a jack?

$$P(jack) = \frac{4}{52} = \frac{1}{13}$$

   b. The card is heart or jack?

$$P(heart\ or\ jack) = P(heart) + P(jack) - P(heart \cap jack)$$
$$= \frac{13}{52} + \frac{4}{52} - \frac{1}{52}$$
$$= \frac{16}{52} = \frac{4}{13}.$$

   c. Find the odds in favor of getting queen and red? $\overline{E}$

$$The\ odds = \frac{P(E)}{P(E')} = \frac{2/52}{1 - 2/52} = \frac{\frac{1}{26}}{\frac{25}{26}} = \frac{1}{25}\ or\ 1:25$$

Q2(5 Points)

Consider the following table which represents the tax increases survey of 100 voters. If one person is selected at random, find

	Favor	Oppose	No Opinion	Total
Democrat	32	26	2	60
Republican	15	17	3	35
Other	4	1	0	5
Total	51	44	5	100

   a. *P (favors tax increases)* $= \frac{51}{100}$

   b. *P (Opposes tax increases)* $= \frac{44}{100}$

   c. *P (Republican with no opinion)* $= \frac{3}{100}$