AP Statistics

2019-01-30 5.1 and 5.2 Assignment

By: **Noah Overcash**

Pg. 297-311 31-36,49,51,53,57-60

Question 31: **C**

Question 32: **A**

Question 33: **D**

Question 34: **C**

Question 35: **C**

Question 36: **E**

Question 49

Part A

0.09; all mutually exclusive probabilities must add up to 1.

Part B

0.37

Part C

0.15

Question 51

	Even	**Not Even**	**Total**
Black	0.2368	0.2368	**0.4737**
Not Black	0.2895	0.2368	**0.5263**
Total	**0.5263**	**0.4737**	**1**

Part B

P(B) = 0.4737

P(E) = 0.5263

Part C

B and E occurs when the ball lands in an even-numbered black slot

P(B and E) = 0.2368

Part D

This is because there is overlap between P(B) and P(E).

P(B or E) = 0.4737 + 0.5263 - 0.2368 = 0.7632

Question 53

Part A

See "2019-01-30 5.1 and 5.2 Homework Question 53.png"

Part B

P(B ∪ M) = 430

This shows the number of respondents who are either male or regularly eat breakfast.

Part C

P(B^C ∩ M^C) = 165

This shows the number of respondents who are not male and do not eat breakfast

Question 57: **C**

Question 58: **D**

Question 59: **C**

Question 60: **C**