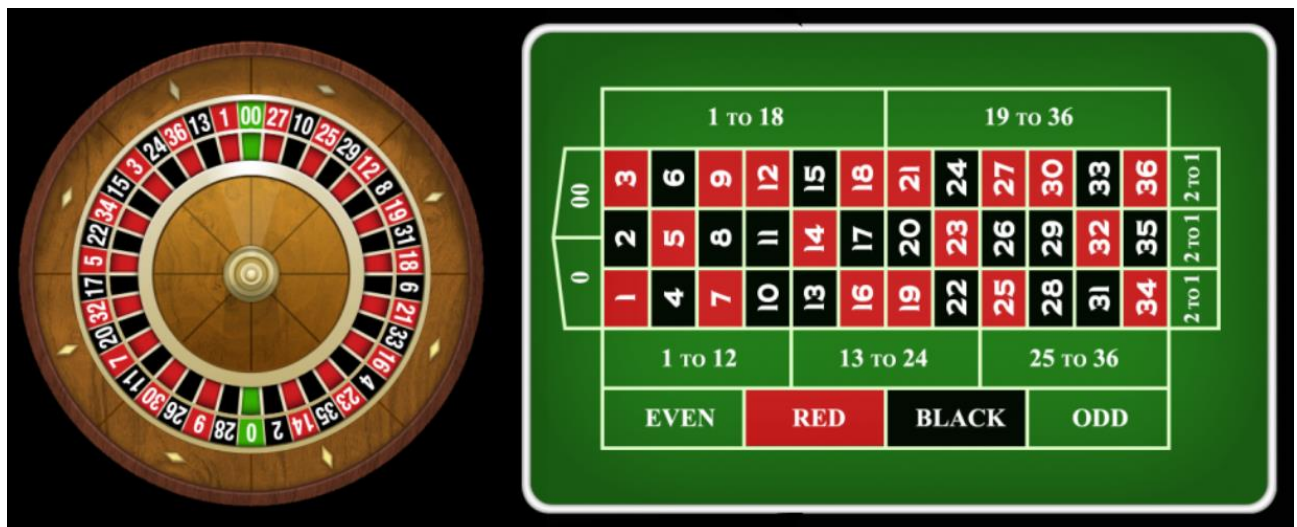
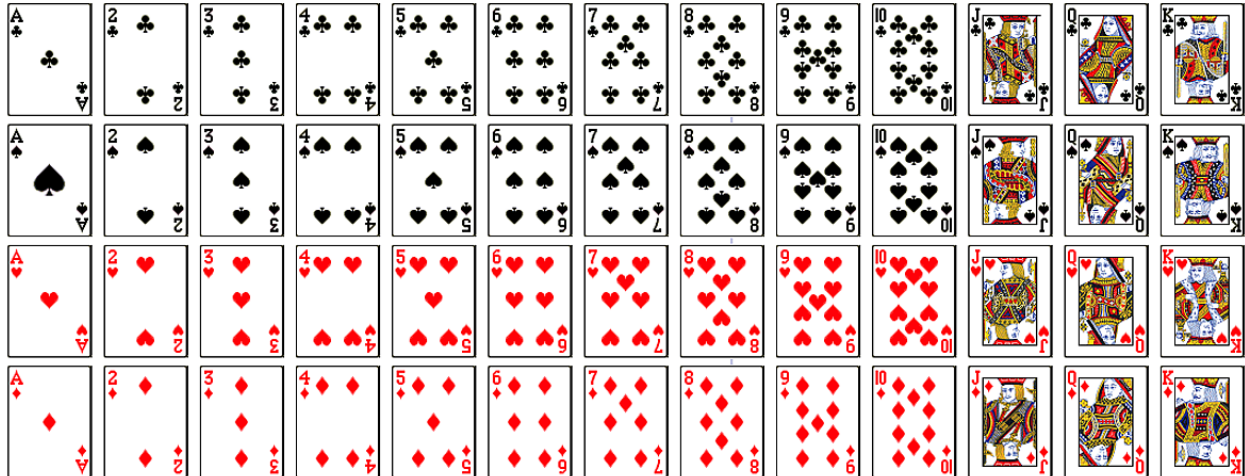


Probability: Playing Cards and Roulette

Objectives:

- Calculating the probability
- Understanding events

Events:



Exercises:

- Using a standard deck of cards (as seen above) and picking a card for each event. Consider Aces are the highest cards.
 - Picking a King
 - Picking a King and a Heart
 - Picking a card that is less than 6

- d. Picking a card that is at least 9
 - e. Picking a Queen or a Diamond
 - f. Picking a card that is no more than 3
 - g. Picking a Club or a Heart
 - h. Picking a 5 and a Queen
 - i. Does not pick a Diamond
2. Using our American Roulette wheel (as seen above) find the probability for each event. Don not count 0 and 00 as low.
- a. The ball lands on the number 27
 - b. The ball lands on a number that is at least 34
 - c. The ball lands on a green space
 - d. The ball lands on an even number
 - e. The ball lands on a number that is at most 4
 - f. The ball lands on a green or a red space
 - g. The ball lands on the number 38
 - h. The ball does not land on a green space.

Answers:

1a. $\frac{1}{13}$

1b. $\frac{1}{52}$

1c. $\frac{4}{13}$

1d. $\frac{6}{13}$

1e. $\frac{4}{13}$

1f. $\frac{2}{13}$

1g. $\frac{1}{2}$

1h. 0

1i. $\frac{3}{4}$

2a. $\frac{1}{38}$

2b. $\frac{3}{38}$

2c. $\frac{1}{19}$

2d. $\frac{9}{19}$

2e. $\frac{2}{19}$

2f. $\frac{10}{19}$

2g. 0

2h. $\frac{18}{19}$