

Name: _____

Course & Section: _____

Electronic copies of this homework are located in D2L.

Probability Post Class Activity

Part 1

Watch the Video: [Probability Post Class Part 1](https://www.youtube.com/watch?v=T2eIGYtbS8g) (<https://www.youtube.com/watch?v=T2eIGYtbS8g>)

1. Assuming the wheel is fair, what is the probability of getting any one specific number? Use fraction notation (e.g.1/20).
 - a. $\frac{1}{38}$
 - b. $\frac{37}{38}$
 - c. $\frac{18}{38}$
 - d. $\frac{19}{38}$

Part 2

Watch the Video: [Probability Post Class Part 2](https://www.youtube.com/watch?v=SgRDBITSGYA) (<https://www.youtube.com/watch?v=SgRDBITSGYA>)

A Roulette wheel has 18 Red, 18 Black and 2 green slots.

1. What is the probability of NOT getting a 15?
 - a. $\frac{1}{38}$
 - b. $\frac{37}{38}$
 - c. $\frac{18}{38}$
 - d. $\frac{19}{38}$
2. Use fraction notation (e.g.1/20).
 - a. $\frac{1}{38}$
 - b. $\frac{37}{38}$
 - c. $\frac{18}{38}$
 - d. $\frac{19}{38}$

Part 3

Watch the Video: [Probability Post Class Part 3](https://www.youtube.com/watch?v=GcjQn_XssCl) (https://www.youtube.com/watch?v=GcjQn_XssCl)

1. Suppose you bet on 15. You continue to play, always betting on 15. What do you expect to happen?
 - a. Never win
 - b. Win $\frac{1}{2}$ of the time
 - c. Win 2-3 times
 - d. Always win

Part 4

Watch the Video: [Probability Post Class Part 4](https://www.youtube.com/watch?v=J12KeM0ZLgM) (https://www.youtube.com/watch?v=J12KeM0ZLgM)

1. What is the probability of getting a red number?

- a. $\frac{1}{38}$
- b. $\frac{37}{38}$
- c. $\frac{18}{38}$
- d. $\frac{19}{38}$

Part 5

Watch the Video: [Probability Post Class Part 5](https://www.youtube.com/watch?v=wd6-P8XXOqk) (https://www.youtube.com/watch?v=wd6-P8XXOqk)

1. What is the probability of getting a black number?

- a. $\frac{1}{38}$
- b. $\frac{37}{38}$
- c. $\frac{18}{38}$
- d. $\frac{19}{38}$
- e.

2. Is it the same as the probability of not getting a red number?

- a. Yes
- b. No
- c. Other: _____

Part 6

Watch the Video: [Probability Post Class Part 6](https://www.youtube.com/watch?v=IXrdxveEXpk) (https://www.youtube.com/watch?v=IXrdxveEXpk)

1. Suppose you bet on red. You continue to play, always betting on red, 100 times. What do you expect to happen?

- a. No wins
- b. 2-3 wins
- c. 47 or 48 wins
- d. 100 wins

Part 7

Watch the Video: [Probability Post Class Part 7](https://www.youtube.com/watch?v=Wrn8YKcTRaY) (https://www.youtube.com/watch?v=Wrn8YKcTRaY)

1. Is the $P(\text{square or red}) = P(\text{square}) + P(\text{red})$?

- a. Yes
- b. No

Part 8

Watch the Video: [Probability Post Class Part 8](https://www.youtube.com/watch?v=Gk9S-IKviD4) (https://www.youtube.com/watch?v=Gk9S-IKviD4)

1. Do A and B overlap?

- a. Yes

- b. No
2. $P(A^c) =$
- a. 1
 - b. .7
 - c. .3
 - d. .95
3. $P(A \text{ or } B) =$
- a. .1
 - b. .7
 - c. .3
 - d. .95

Probability Rules Handout

Visit to get a summary of the probability rules: <http://goo.gl/NXSy1V>

Part 9

Watch the Video: [Probability Post Class Part 9](https://www.youtube.com/watch?v=bkYEZBEPQIM) (<https://www.youtube.com/watch?v=bkYEZBEPQIM>)