



[Course](#) > [Module 3: Random...](#) > [Mean, Variance, an...](#) > Homework

## Homework

Please answer the following questions. Be sure that you have downloaded the associated Excel file before beginning the homework. This lesson uses the **JulySumofMVSDHW.xlsx** file.

*Remember that homework counts for 20% of your final grade. You are allowed **unlimited** attempts per question for homework problems. The main goal of homework is for you to practice and learn how to apply what you've learned in the content without worrying about getting the problem right the first time. Some homework problems may also provide hints or advice. Have fun!*

### M3L3HW1

3/3 points (graded)

You toss two dice fifty times. Find the mean, variance, and standard deviation of the **total** number of dots showing.

Mean:

☐ 300

☐ 325

☒ 350 ✓

☐ 375

Variance:

☐ 290

☒ 292 ✓

☐ 294

☐ 296

Standard Deviation:

☐ 17.00

☐ 17.02

☐ 17.04

☒ 17.08 ✓

Submit

✓ Correct (3/3 points)

## M3L3HW2

3/3 points (graded)

The average number of births each day in Gotham City Hospital is 6 with a standard deviation of 3. In a 30 day month determine the mean, variance, and standard deviation of the total number of births.

The mean calculation requires the assumption that each day's births follow same random variable; no independence needed.

Mean:

☒ 180 ✓

☐ 185

☐ 190

☐ 195

The variance and standard deviation calculations require the assumption that births on each day follow identical independent random variables.

Variance:

☐ 265☒ 270 ✓☐ 275☐ 280

Standard Deviation:

☐ 16.41☒ 16.43 ✓☐ 16.45☐ 16.47

---

✓ Correct (3/3 points)

---

## M3L3HW3

3/3 points (graded)

When a roulette wheel is spun, the possible outcomes are 0, 00, 1, 2, ..., 36. If you bet on a number coming up, you win \$35 if your number comes up and you lose \$1 otherwise. You bet \$1 on the number 14 in roulette 100 times. Find the mean, variance, and standard deviation of your winnings.

Mean:

☐ Win \$5.26

☒ Lose \$5.26 ✓

☐ Win \$6.25

☐ Lose \$6.25

Variance:

☐ 3.3208

☐ 33.208

☐ 332.08

☒ 3320.8 ✓

Standard Deviation:

☐ \$5.76

☒ \$57.63 ✓

☐ \$6.75

☐ \$67.50

Submit

---

✓ Correct (3/3 points)

© All Rights Reserved