

- 1. What is the area under the standard normal curve to the left of -1.96? (Use the qnorm function in R)
- 2. What is the area under the standard normal curve to the left of 1.96? (use the qnorm function)
- 3. What is the area under the standard normal curve to the right of 1.96? (use qnorm)
- 4. What value cuts off an area .1 to it's left under the standard normal curve? (use the pnorm function)
- 5. What value cuts off an area .1 to it's right under the standard normal curve? (use pnorm)
- 6. What is the probability that a t random variable with 6 degrees of freedom is less than -1.9?
- 7. What is the probability that a t random variable with 6 degrees of freedom is less than 1.9?
- 8. What is the probability that a t random variable with 6 degrees of freedom is greater than 1.9?
- 9. What is the probability that an F random variable with 3 numerator and 7 denominator degrees of freedom is less than 4.3?
- 10. What is the probability that an F random variable with 3 numerator and 7 denominator degrees of freedom is greater than 4.3?
- 11. midterm W2022, question 2c)

The following table gives the information necessary to calculate the p-value. What is the p-value?

pt(-1.482, 10)	pt(1.482, 10)	pt(-1.482, 9)	pt(1.482, 9)	pt(-1.482, 8)	pt(1.482, 8)
0.0846	0.9154	0.0862	0.9138	0.0883	0.9117

- 12. midterm W2022, question 4
- The following table gives the information necessary to calculate the p-value. What is the p-value?
- | | | | |
|-------------|---------------|-------------|---------------|
| pf(30,2,27) | 1-pf(30,2,27) | pf(30,27,2) | 1-pf(30,27,2) |
| 1.000000 | 0.000000 | 0.967256 | 0.032744 |

- 13. midterm W2023, question 2b.
- The following question gives the information necessary to calculate the p-value. What is the p-value?
- | | |
|-------------|---------------|
| pnorm(2.40) | 1-pnorm(2.40) |
| .992 | .008 |

- 14. A pooled t confidence interval was calculated. The difference of means was 6, and the pooled estimate of standard deviation was 3. The two sample sizes were 5 and 7. Using the following table, what is the 95% confidence interval for the difference of means?
- | | | | | | |
|-------------|-------------|-------------|------------|------------|------------|
| qt(.025,12) | qt(.025,11) | qt(.025,10) | qt(.05,12) | qt(.05,11) | qt(.05,10) |
| -2.1788 | -2.2010 | -2.2281 | -1.7823 | -1.7959 | -1.8125) |