# Quiz Review

## Problems

**Exercise 1.**

Colleges and universities are requiring an increasing amount of information about applicants before making acceptance and financial aid decisions. Select all the variables below which are quantitative.

- ☐ High school GPA
- ☐ Country of citizenship
- ☐ Applicant's score on the SAT or ACT
- ☐ Gender of applicant
- ☐ Parents' income
- ☐ Age of applicant

**Exercise 2.**

Use R to calculate the mean, variance, standard deviation of the following data table. The table below gives the number of shafts buried at each of 13 recently discovered gravesites.

```
1, 2, 3, 1, 5, 6, 2, 4, 1, 2, 4, 2, 9
```

**Hint**: Please creat a vector in R with the values above, use `mean()`, `var()`, `sd()` to find the mean, variance, and standard deviation, respectively.

**Exercise 3.**

Given that the random variable $z$ has the standard normal probability distribution, write the R code is correct in finding the following probability $\Pr(z >= -1)$.

**Exercise 4.**

Given that the random variable $z$ has the standard normal probability distribution, write the R code in finding the following probability $\Pr(-1.96 <= z <= 1.96)$.

**Exercise 5.**

Given that the random variable $y$ has a normal probability distribution with mean 100 and variance 64, write the R code in finding the following probability $\Pr(y <= 92)$.

**Exercise 6.**

Given that the random variable $y$ has a normal probability distribution with mean 100 and variance 64, write the R code in finding the following probability $\Pr(76 <= y <= 124)$.