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Assignment 6 Answers

1. Any word that has all the same letters in it will hash to the same value under `stringHash1`. So, "seven", "sveen", "neves" and all other iterations will hash to 545.
2. `StringHash2` is better in that it performs a multiplication based on letter location. So, location of letters matter in this hash which means "seven", "sveen" and "neves" all hash to different locations.
3. It shouldn't. `Size` should always return the number of items added to the collection. This is true whether a collision occurs or not.
4. Yes. Since `hashString1` will collide more often than `hashString2` it will have less table load. More items will be chained at each table location.
5. Yes, for the same reasons as #4.
6. Yes. The prime number doesn't have any factors other than itself and 1. This means that there are less numbers that mod to the same place (like 0). The bucket distribution will be more even.
7. Larger size tables take longer to hash than smaller size tables.