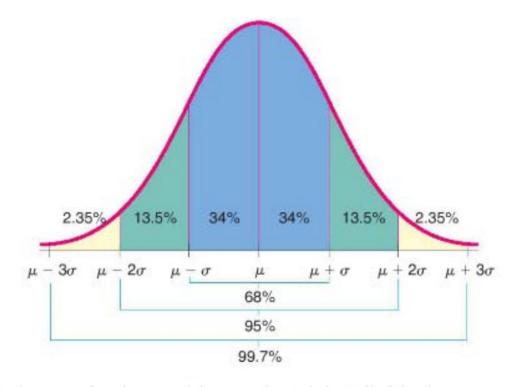
## Worksheet 7

## Worksheet 7.1c: Area Under a Normal Curve

Grades for our second statistics test follow the normal distribution with a mean of 84 and a standard deviation of 4.



- 1) Estimate the range of grades around the mean that includes 68% of the class.
- 2) Estimate the range of grades around the mean that includes 95% of the class.
- 3) Estimate the range of grades around the mean that includes 99.7% of the class.
- 4) What percentage of students have a grade higher than 84?
- 5) What percentage of students have a grade lower than 84?

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## Worksheet 7

## Worksheet 7.1d: Empirical Rule

The following problems refer to a distibution of home sales prices with a mean of \$300,000 and a standard deviation of \$50,000.

1) Determine the percentage of the houses that should sell for prices between \$250,000 and \$350,000.

2) Determine the minimum percentage of the houses that should sell for prices between \$200,000 and \$400,000.

3) Determine the minimum percentage of the houses that should sell for prices between \$150,000 and \$450,000.

- 4) What percentage of the houses have a price higher than \$300,000?
- 5) What percentage of the houses have a price lower than \$300,000?

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