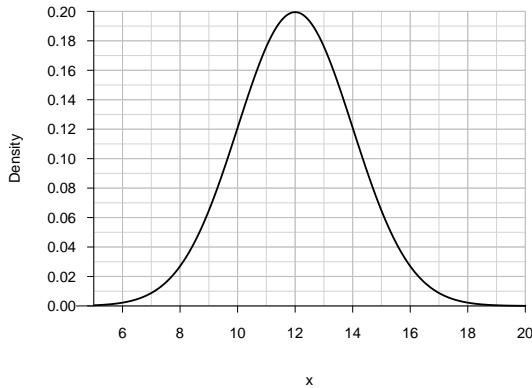


Exer 3.15

[B/B106]

The plot purports to show the density of a distribution of data. If this is true, the fraction of the data that falls between any two values on the x axis should be the area under the curve between those two values.



Answer the following questions. In doing so, keep in mind that the area of each little box on the graph paper has been arranged to be 0.01, so you can calculate the area by counting boxes. You don't need to be too fanatical about dealing with boxes where only a portion is under the curve; just eyeball things and estimate.

1. The total area under a density curve should be 1. Assuming that the density curve has height zero outside of the area of the plot, is the area under the entire curve consistent with this? yes no Exer 3.15-1

2. What fraction of the data falls in the range $12 \leq x \leq 14$?

- A 14%
- B 22%
- C 34%
- D 56%
- E Can't tell from this graph.

Exer 3.15-2

3. What fraction of the data falls in the range $14 \leq x \leq 16$?

- A 14%
- B 22%
- C 34%
- D 56%
- E Can't tell from this graph.

Exer 3.15-3

4. What fraction of the data has $x \geq 16$?

- A 1%
- B 2%
- C 5%
- D 10%
- E Can't tell from this graph.

Exer 3.15-4

5. What is the width of the 95% coverage interval. (Note: The coverage interval itself has top and bottom ends. This problem asks for the spacing between the two ends.)

- A 2
- B 4
- C 8
- D 12
- E Can't tell from this graph.

Exer 3.15-5