## Warm-Up 11

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## 1 Formual Area

- 1. Mean of a uniform distribution between a and b:  $\mu = (b+a)/2$ .
- 2. Variance of a uniform distribution between a and b:  $\sigma^2 = (b-a)^2/12$ .

## 2 Histogram Review, Uniform Distribution

1. The data that follow are the number of passengers on 15 different charter fishing boats. Create a histogram below of the normalized (relative) frequencies.

Passengers: 9 15 8 18 1 13 6 7 12 6 4 4 14 10 0 7 2 0 12 0

- 2. What is the sample mean?
- 3. Do you notice any pattern in the shape of the distribution?
- 4. Suppose the data was drawn from a *uniform distribution*. Compute the theoretical population mean and standard deviation, and compare them to the sample mean and standard deviation. How closely do they match?