

Name _____

Date _____

Graphing Probability Distribution - Independent Practice Worksheet

Complete all the problems.

1.

a. Draw a relative frequency histogram of the data. Comment on the shape of the distribution.

Length (inches)	Relative frequency
2.0-2.9	0.005
3.0-3.9	0.005
4.0-4.9	0.005
5.0-5.9	0.029
6.0-6.9	0.08
7.0-7.9	0.061
8.0-8.9	0.081
9.0-9.9	0.016
10.0-10.9	0.116
11.0-11.9	0.21
12.0-12.9	0.18
13.0-13.9	0.17
14.0-14.9	0.17
15.0-15.9	0.012
16.0-16.9	0.041
17.0-17.9	0.031
18.0-18.9	0.031
19.0-19.9	0.005
20.0-20.9	0.005

b. Draw a normal curve with $\mu = 11.5$ inches $\sigma = 5.20$ inches on the relative frequency histogram. Compare the area of the rectangle for heights between 10 and 10.9 inches to the area under the normal curve for heights between 10 and 10.9 inches.

Name _____

Date _____

2.

a. Draw a relative frequency histogram of the data. Comment on the shape of the distribution.

Length (inches)	Relative frequency
12.0-12.9	0.004
13.0-13.9	0.004
14.0-14.9	0.004
15.0-15.9	0.024
16.0-16.9	0.06
17.0-17.9	0.054
18.0-18.9	0.079
19.0-19.9	0.014
20.0-20.9	0.118
21.0-21.9	0.19
22.0-22.9	0.16
23.0-23.9	0.15
24.0-24.9	0.15
25.0-25.9	0.011
26.0-26.9	0.039
27.0-27.9	0.039
28.0-28.9	0.039
29.0-29.9	0.004
30.0-30.9	0.004

b. Draw a normal curve with $\mu = 21.5$ inches $\sigma = 2.14$ inches on the relative frequency histogram. Compare the area of the rectangle for heights between 21 and 21.9 inches to the area under the normal curve for heights between 21 and 21.9 inches.



Name _____

Date _____

3.

a. Draw a relative frequency histogram of the data. Comment on the shape of the distribution.

Length (inches)	Relative frequency
18.0-18.9	0.003
19.0-19.9	0.003
20.0-20.9	0.003
21.0-21.9	0.022
22.0-22.9	0.09
23.0-23.9	0.051
24.0-24.9	0.062
25.0-25.9	0.019
26.0-26.9	0.114
27.0-27.9	0.12
28.0-28.9	0.11
29.0-29.9	0.15
30.0-30.9	0.15
31.0-31.9	0.023
32.0-32.9	0.031
33.0-33.9	0.031
34.0-34.9	0.031
35.0-35.9	0.003
36.0-36.9	0.003

b. Draw a normal curve with $\mu = 28.0$ inches $\sigma = 3.15$ inches on the relative frequency histogram. Compare the area of the rectangle for heights between 30 and 30.9 inches to the area under the normal curve for heights between 30 and 30.9 inches.

