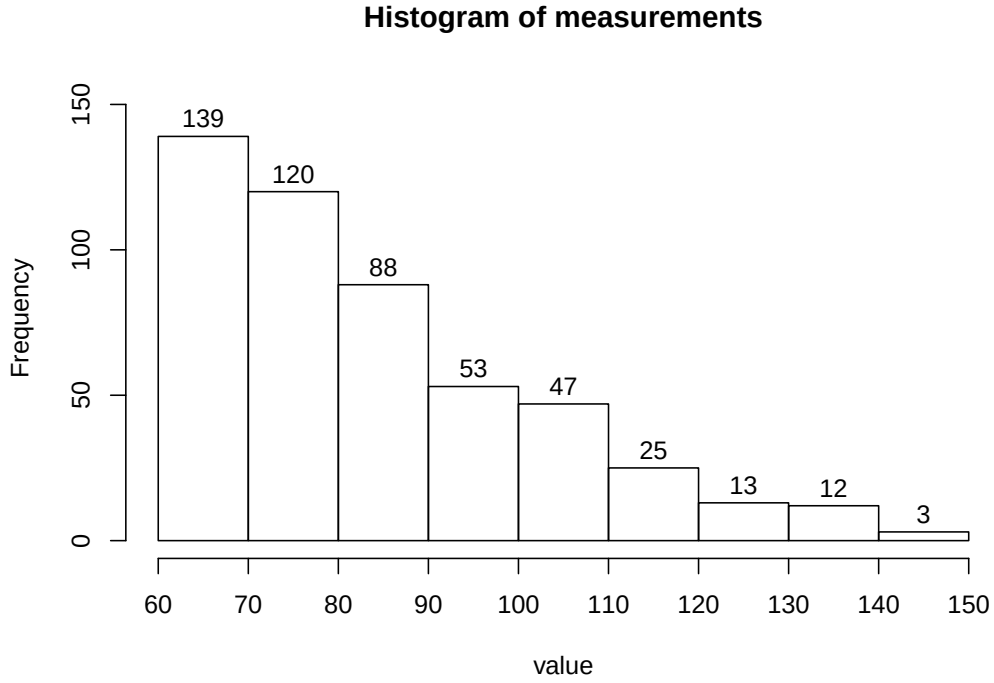
1. **Problem**
   A continuous random variable was measured 500 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

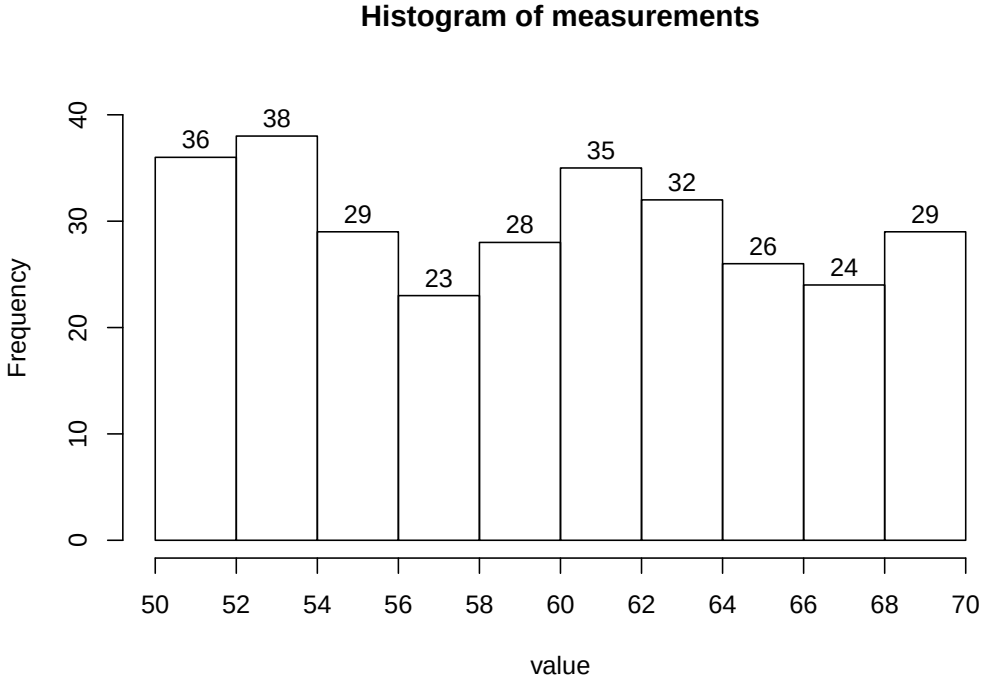
(c) What percent of the measurements are greater than 110?

(d) What percent of the measurements are less than 140?

(e) Of the measurements greater than 110, what percent are less than 140?

(f) Estimate the value of the 80th percentile.

2. **Problem**
A continuous random variable was measured 300 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

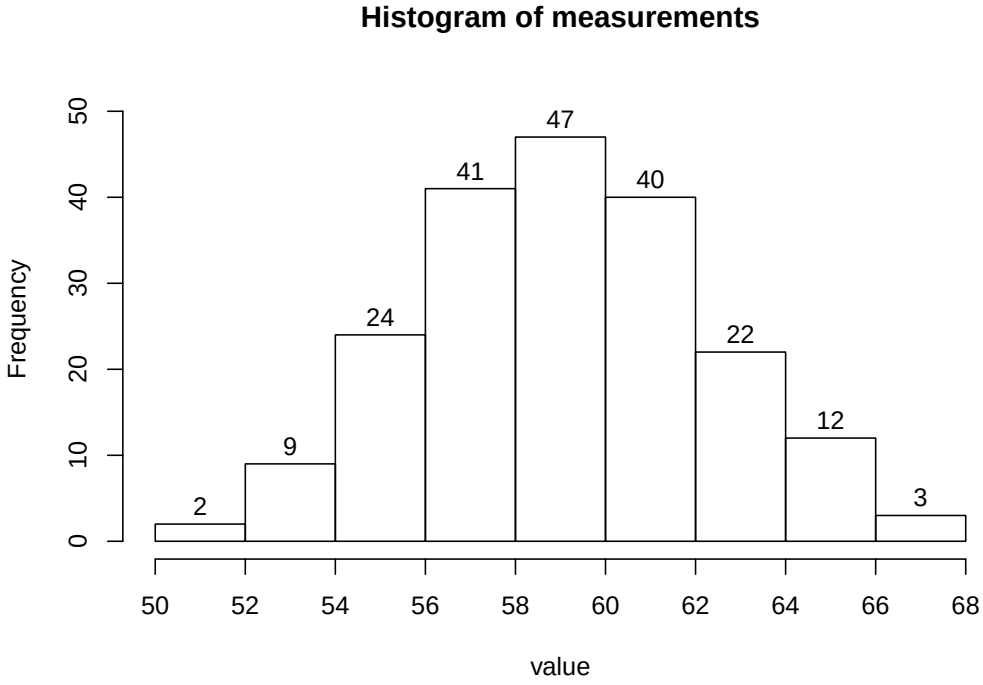
(c) What percent of the measurements are greater than 54?

(d) What percent of the measurements are less than 56?

(e) Of the measurements greater than 54, what percent are less than 56?

(f) Estimate the value of the 82.33th percentile.

3. **Problem**
A continuous random variable was measured 200 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

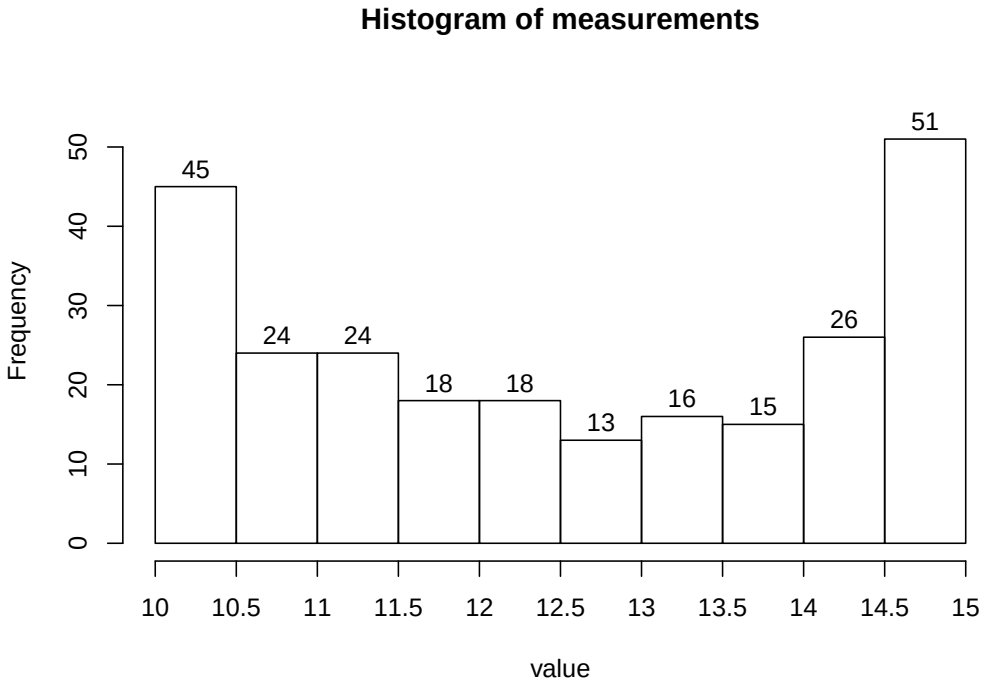
(c) What percent of the measurements are greater than 62?

(d) What percent of the measurements are greater than 66?

(e) Of the measurements greater than 62, what percent are greater than 66?

(f) Estimate the value of the 92.5th percentile.

4. **Problem**
A continuous random variable was measured 250 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

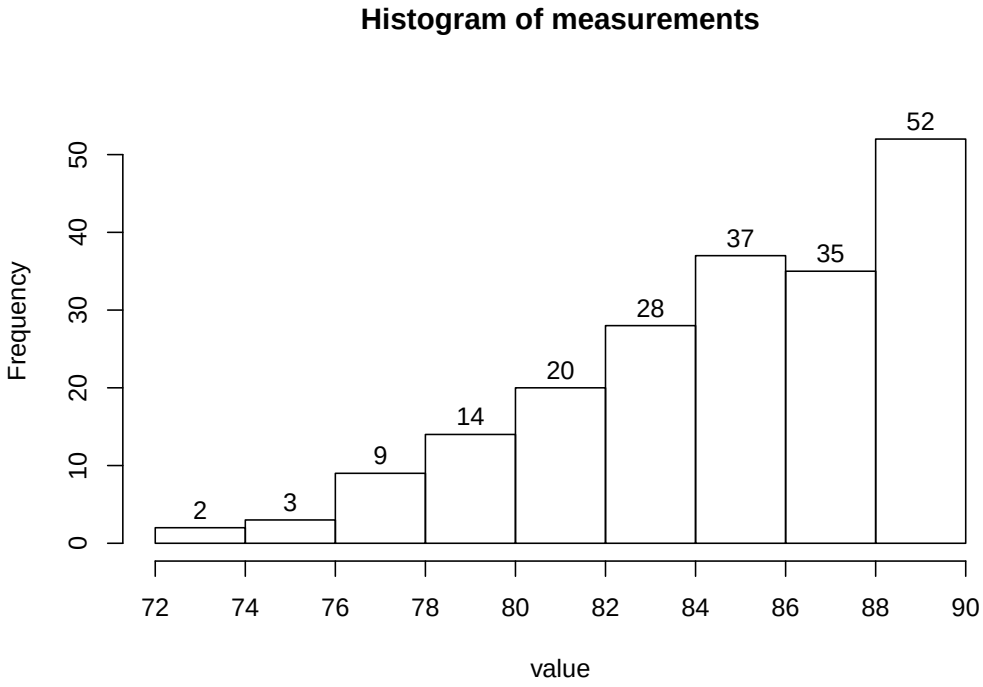
(c) What percent of the measurements are less than 11?

(d) What percent of the measurements are greater than 10.5?

(e) Of the measurements less than 11, what percent are greater than 10.5?

(f) Estimate the value of the 63.2th percentile.

5. **Problem**
A continuous random variable was measured 200 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

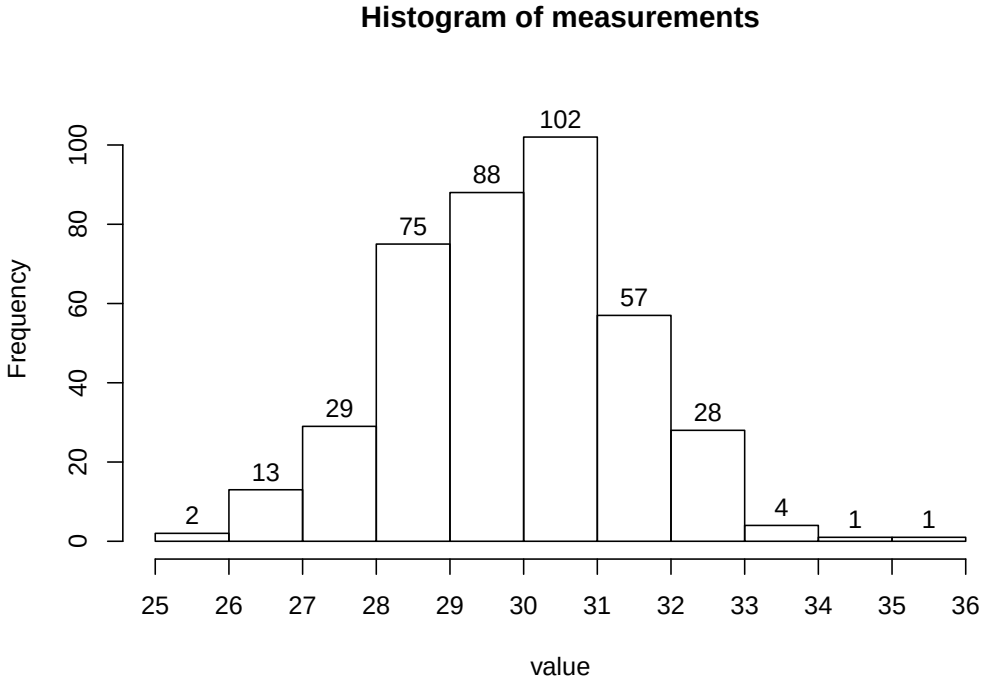
(c) What percent of the measurements are greater than 76?

(d) What percent of the measurements are greater than 84?

(e) Of the measurements greater than 76, what percent are greater than 84?

(f) Estimate the value of the 24th percentile.

6. **Problem**
A continuous random variable was measured 400 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

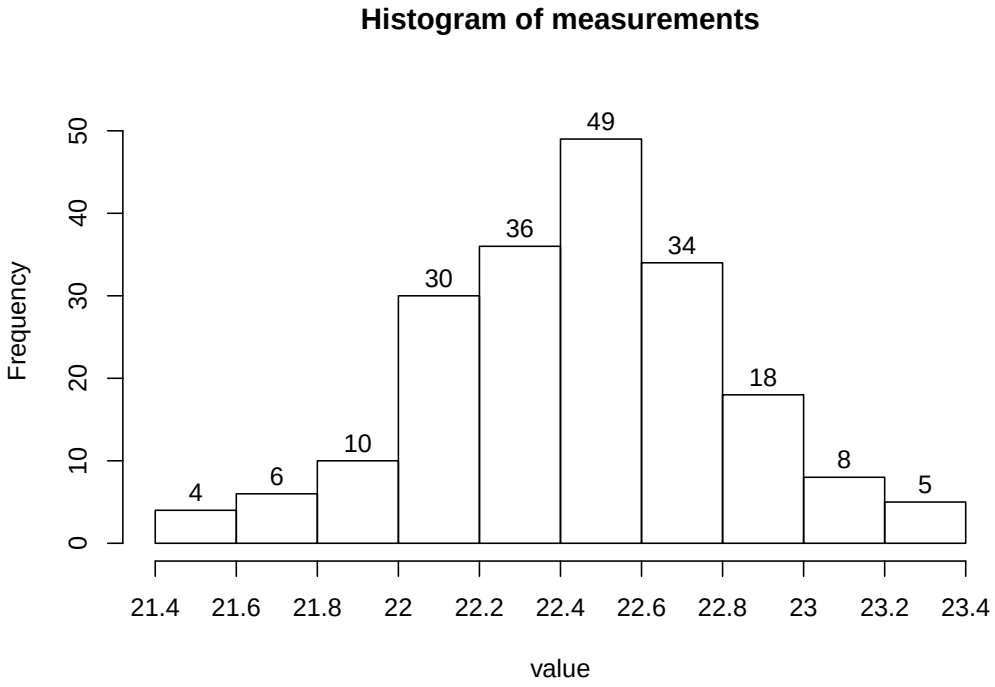
(c) What percent of the measurements are greater than 30?

(d) What percent of the measurements are greater than 31?

(e) Of the measurements greater than 30, what percent are greater than 31?

(f) Estimate the value of the 29.75th percentile.

7. **Problem**
A continuous random variable was measured 200 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

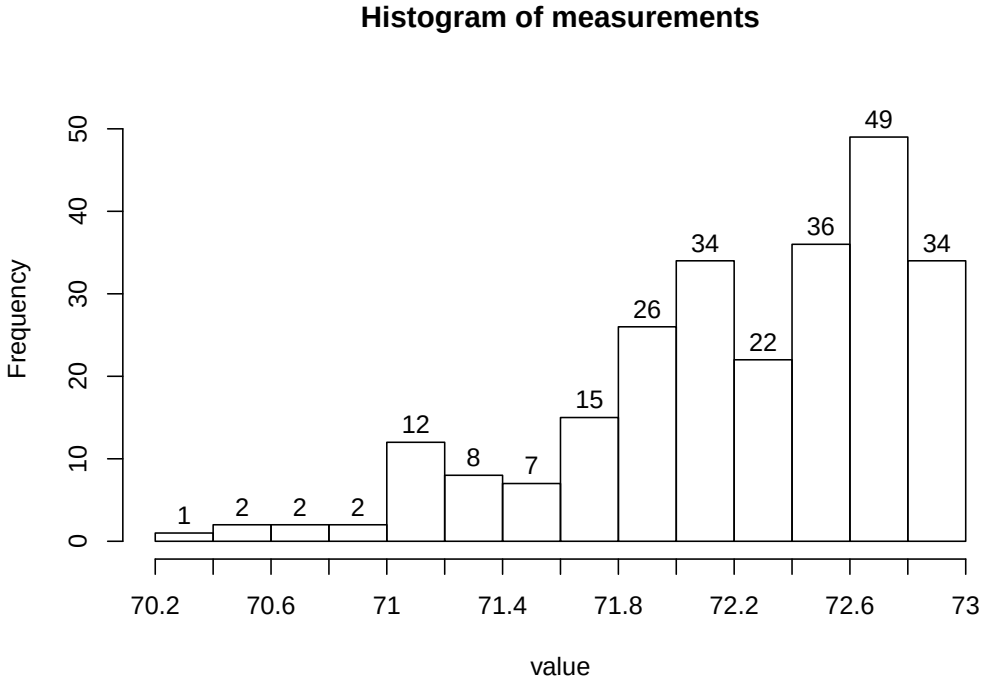
(c) What percent of the measurements are greater than 22.6?

(d) What percent of the measurements are less than 22.8?

(e) Of the measurements greater than 22.6, what percent are less than 22.8?

(f) Estimate the value of the 5th percentile.

8. **Problem**
A continuous random variable was measured 250 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

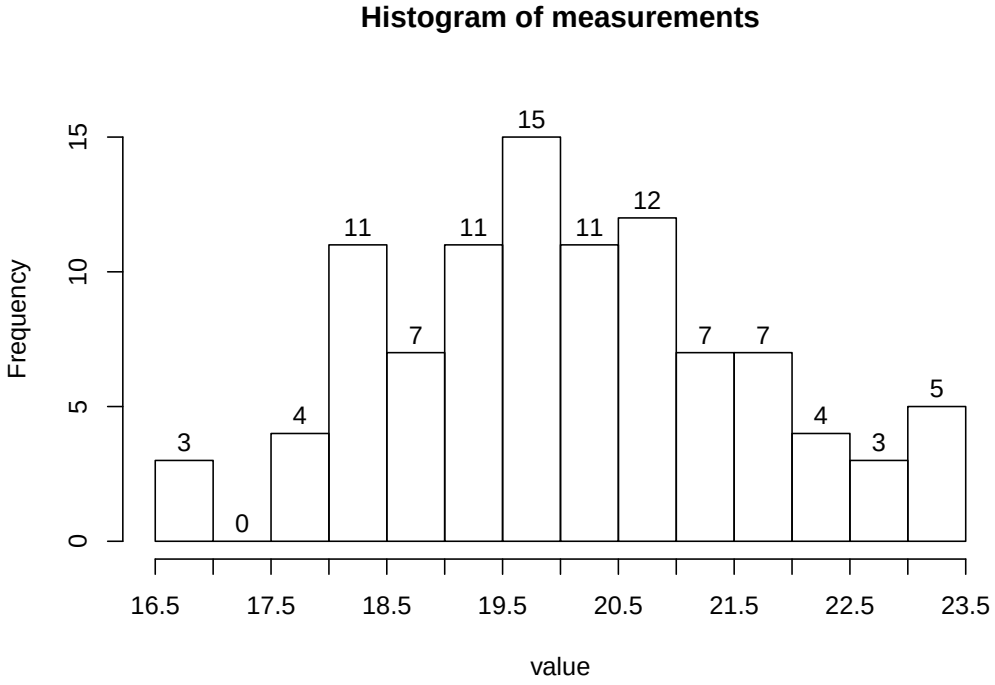
(c) What percent of the measurements are less than 71.2?

(d) What percent of the measurements are greater than 70.6?

(e) Of the measurements less than 71.2, what percent are greater than 70.6?

(f) Estimate the value of the 43.6th percentile.

9. **Problem**
A continuous random variable was measured 100 times. The histogram is shown below.



(a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)

(b) Estimate the range of the distribution (range = max-min).

(c) What percent of the measurements are less than 18.5?

(d) What percent of the measurements are less than 17.5?

(e) Of the measurements less than 18.5, what percent are less than 17.5?

(f) Estimate the value of the 3th percentile.

1. (a) skew right
   (b) 90
   (c) 10.6%
   (d) 99.4%
   (e) 94.34%
   (f) 100
2. (a) uniform
   (b) 20
   (c) 75.33%
   (d) 34.33%
   (e) 12.83%
   (f) 66
3. (a) symmetric mound
   (b) 18
   (c) 18.5%
   (d) 1.5%
   (e) 8.108%
   (f) 64
4. (a) bimodal
   (b) 5
   (c) 27.6%
   (d) 82%
   (e) 34.78%
   (f) 13.5
5. (a) skew left
   (b) 18
   (c) 97.5%
   (d) 62%
   (e) 63.59%
   (f) 82
6. (a) symmetric mound
   (b) 11
   (c) 48.25%
   (d) 22.75%
   (e) 47.15%
   (f) 29
7. (a) symmetric mound
   (b) 2
   (c) 32.5%
   (d) 84.5%
   (e) 52.31%
   (f) 21.8
8. (a) skew left
   (b) 2.8
   (c) 7.6%
   (d) 98.8%
   (e) 84.21%
   (f) 72.2
9. (a) symmetric mound
   (b) 7
   (c) 18%
   (d) 3%
   (e) 16.67%
   (f) 17