Name: $\qquad$
Date: $\qquad$ Class: $\qquad$

## 68, 95, 99.7 Rule

1. A competency test has scores with a mean of 80 and a standard deviation of 10 .
a) Sketch the distribution

b) Between what two scores does $68 \%$ of the test scores fall?
c) How much of the data is between 80 and 110 ?
d? What percent of students got below a 60 ?
2. The Army reports that the distribution of head circumferences among male soldiers is normally distributed with a mean of 23 and a standard deviation of 2.
a) Sketch the distribution

b) What percent of soldiers have a head circumference greater than 24 inches?
c) What percent of soldiers have a head circumference between 18 inches and 26 inches?
$d$ ? What percent of soldiers have a head circumference less than 24 inches?
3. SAT verbal scores are normally distributed with a mean of 450 and a standard deviation of 120 .
a) Sketch the distribution

b) What percent of the scores lie between 210 and 690?
c) What percent of the scores lie between 450 and 690 ?
d) What percent of the scores lie between 210 and 570 ?
4. The mean weight of adult men is 180 pounds with a standard deviation of 25 pounds.
a) Sketch the distribution

b) What percent of men weigh less than 130 pounds?
c) What percent of men have a weight between 130 and 205 pounds?
d) What percent of all men have a weight less than 230 pounds?
e) What percent of men weight less than 105 pounds?
