

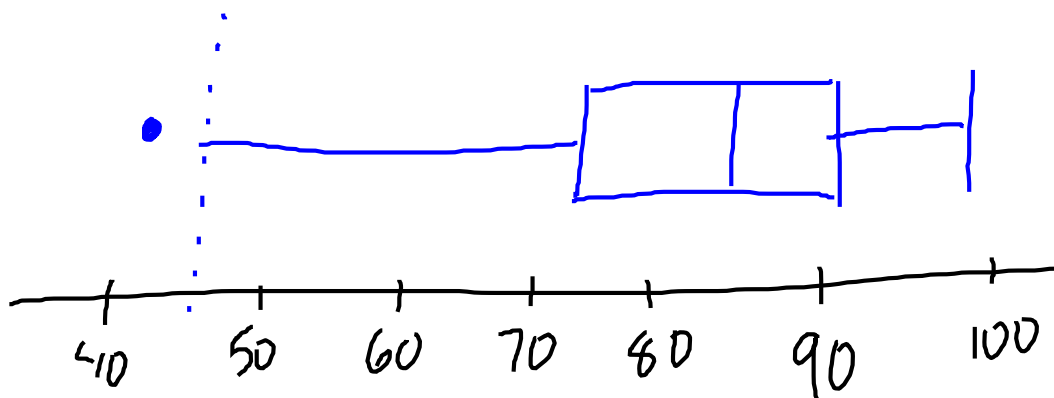
Monday, September 10, 2018

IQR: $91 - 73$
 $= 18$

Min: 42
 Q1: 73
 Med: 83
 Q3: 91
 Max: 99

$73 - 1.5(18)$
 (46)

- Warm-up
 - Draw the box plot for the following data from a test:



Test grades	
stem	leaf
4	2
5	
6	7
7	3 8
8	2 4 6
9	1 4 9

- Revisit Candy Bar data

Review Candy Bar

data

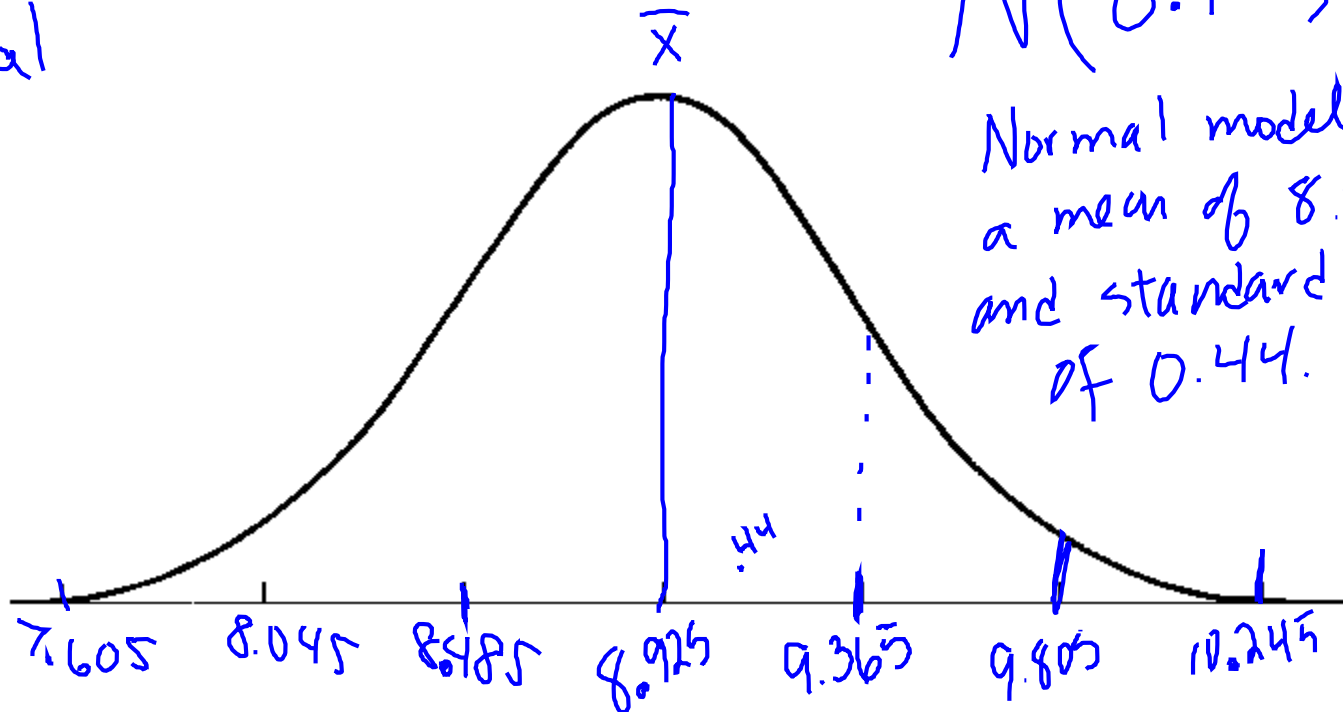
8.923 - 0.002
for
each
one

- Mean: $\bar{x} = 8.925$ $\mu =$
- Standard deviation: $s = 0.44$ $\sigma = 0.43$
- Model...

Normal

$N(8.925, 0.44)$

Normal model with
a mean of 8.925
and standard deviation
of 0.44.



What if I take off the wrapper?

Minus 0.002



What if I convert to ounces?

$$\text{oz} = \text{g} / 28.35$$

$\bar{X} \rightarrow$

$$\frac{8.925}{28.35}$$

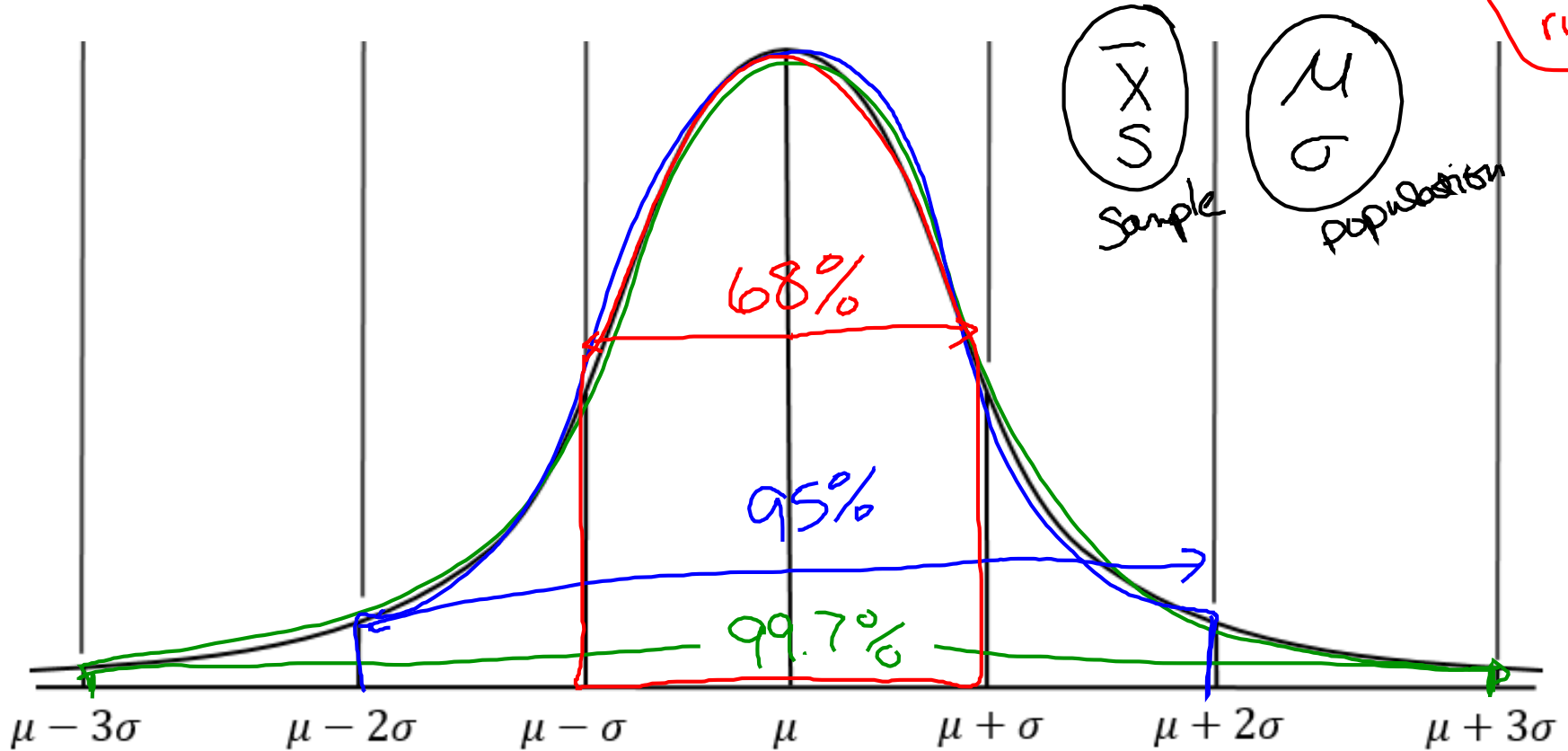
$S \rightarrow$

$$\frac{0.44}{28.35}$$



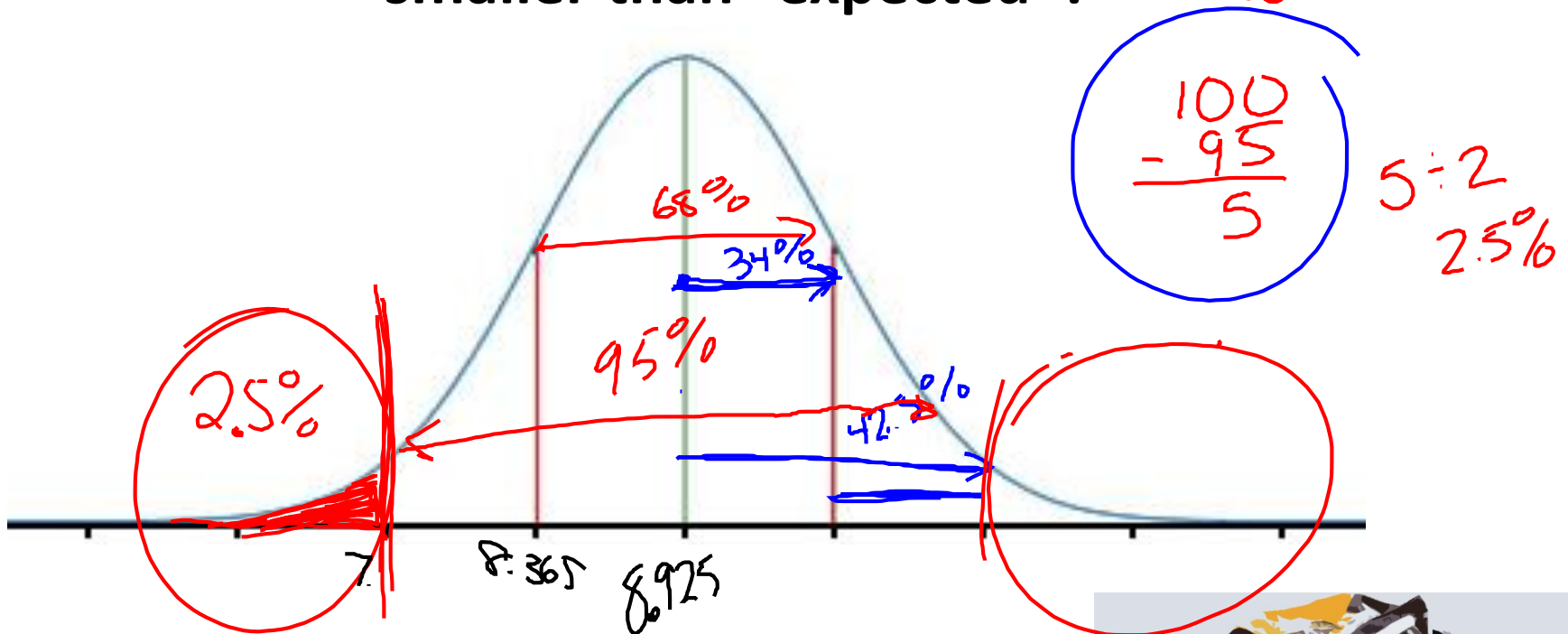
Empirical Rule

68
95
99.7
rule



Using the data

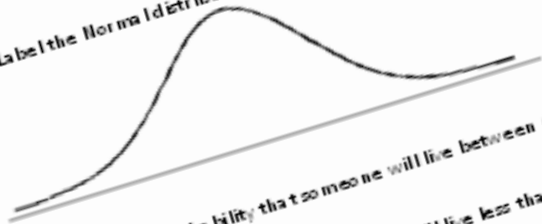
What is the probability of finding a candy bar smaller than “expected”?



Practice with Empirical Rule

A

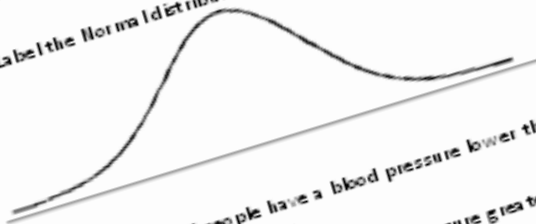
The average human lifespan is 79 years with a standard deviation of 15 years.
Label the Normal Distribution for the given situation.



1. What is the probability that someone will live between 49 and 64 years?
2. What is the probability that someone will live less than 94 years?

C

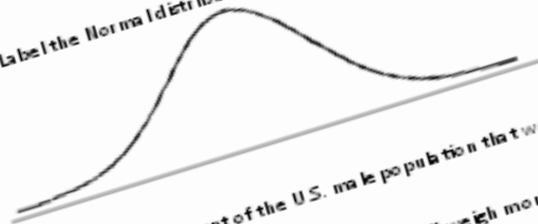
The average systolic blood pressure is 113.8 with a standard deviation of 10.8.
Label the Normal Distribution for the given situation.



1. What percent of people have a blood pressure lower than 92.2, but higher than 81.4?
2. What percent of people have a blood pressure greater than 124.6?

B

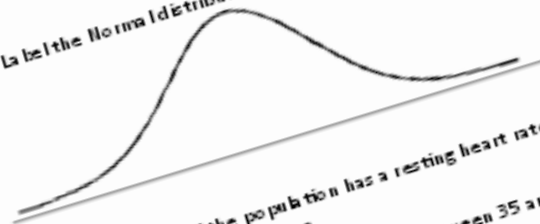
The average U.S. male weighs 172 lbs with a standard deviation of 29 lbs.
Label the Normal Distribution for the given situation.



1. What is the percent of the U.S. male population that weigh in between 230 and 259 lbs?
2. What is the probability that someone will weigh more than 114 lbs?

D

The average resting heart rate is 80 with a standard deviation of 15 beats.
Label the Normal Distribution for the given situation.



1. What percent of the population has a resting heart rate below 35 beats per minute?
2. What percent has a resting heart rate between 35 and 50 beats per minute?

Homework:

P131

(25, 26,

29, 30)

