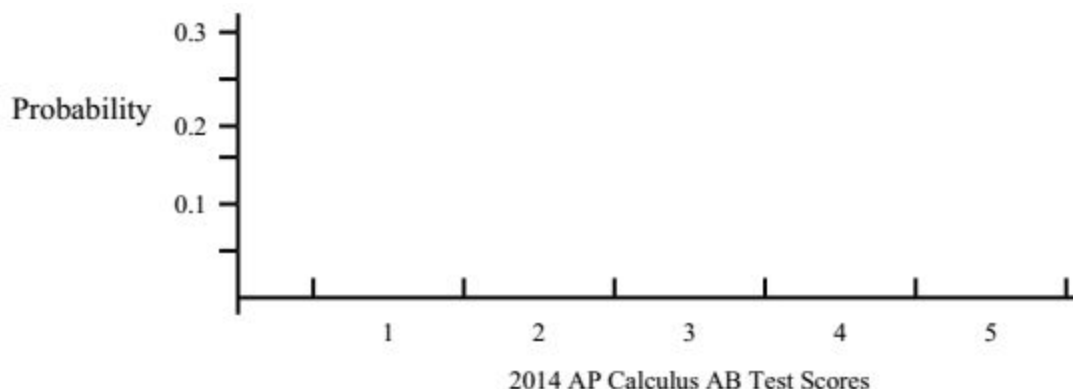


The national percents for the scores of the 2014 AP Calculus AB test are listed in the table.

Score (X)	1	2	3	4	5
Percent	30.5%	10.8%	17.7%	16.7%	24.3%

1. Draw the probability histogram.



2. A score of 3 or higher is considered passing. If a student who took the 2014 AP Calculus AB Test is randomly selected, what is the probability that he/she passed the test?

Let X be a continuous random variable between 0 and 4 such that every number in the interval has an equal chance of being chosen.

3. Draw the density curve to the right.

A random number is chosen in the interval from 0 to 4.

- b. What is the probability that it is between 0.94 and 2.56?

- 4.a What is the probability that it is greater than 1.75?

- 4.b. What is the probability that it is less than 2.53?

Let X be a continuous random variable between 1 and 3 such that every number in the interval has an equal chance of being chosen.

5. Draw the density curve to the right.



A random number is chosen in the interval from 1 to 3.

b. What is the probability that it is between 1.94 and 2.56?

6.a. What is the probability that it is greater than 1.75?

6b. What is the probability that it is less than 2.53?

7. In a normal distribution...

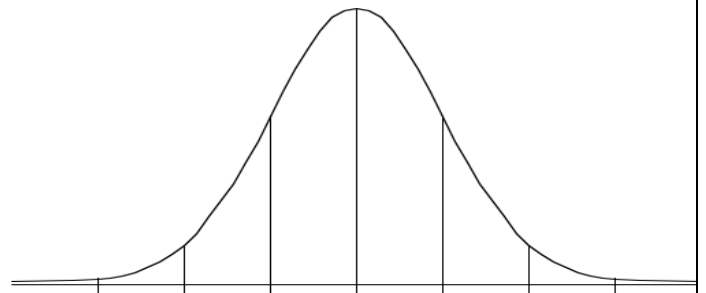
_____ % of the observations are within one standard deviation of the mean.

_____ % of the observations are within two standard deviations of the mean.

_____ % of the observations are within three standard deviations of the mean.

Use this information for #8-11:

The distribution of heights of U.S. adult males is approximately normal with a mean of 69.5 inches and standard deviation of 2.6 inches.



8. Fill in the blanks on the normal curve.

What percent of U.S adult males are shorter than 72.1 inches?

What percent of U.S adult males are taller than 64.3 inches?

9. What is the probability that a randomly selected U.S adult male is shorter than 66.9 inches or taller than 74.7 inches?

What percent of U.S adult males are between 66.9 inches and 77.3 inches tall?

Use Table A for questions 10-12 (along with the info above)

10. What percent of U.S adult males are shorter than 70 inches?

What is the probability that a randomly selected U.S. adult male is taller than 67 inches?

11. What percent of U.S adult males are shorter than 65 inches?

What is the probability that a randomly selected U.S. adult male is taller than 71 inches?

12. What percent of U.S adult males are shorter than 73 inches?

What is the probability that a randomly selected U.S. adult male is taller than 75 inches?

13. Mr. Anderson wants to use a group of 7 students to plan a class party before winter break. He assigns each student a number and then uses the randINT feature of his calculator to randomly pick the students.

- A. What type of sampling is this an example of?
- B. Explain what kind of bias may be present, or if there is little or none state that there is little or none.

14. Coach Sanderson sends home a survey to parents and students asking if they think more homework should be given out, and only 65% of parents and students respond.

- A. What type of sampling is this an example of?
- B. Explain what kind of bias may be present, or if there is little or none state that there is little or none.

15. Given the polynomial $P(x) = x^4 + 6x^3 + 9x^2 + 96x - 112$

use a graphing calculator to estimate 2 zeros, and then use them to find ALL zeros. Also find the value of $f(-2)$ =

Zeros:

Write as a product of linear factors:

$f(-2) = \underline{\hspace{2cm}}$

16. Use the function below to find the listed information.

Then, graph the function.

$$y = \frac{4-x}{x-1}$$

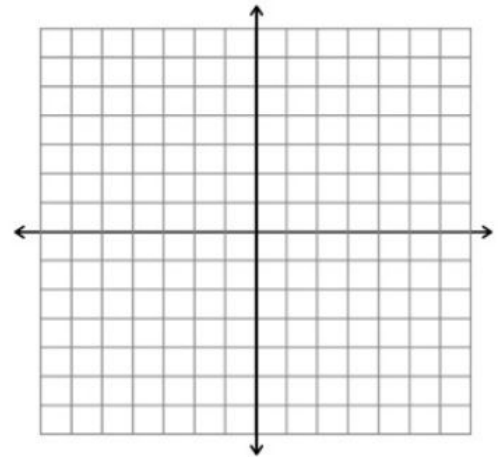
V.A.:

H.A.:

x -intercept(s):

y -intercept(s):

Transformation Form:



17. Use the following information to answer the questions and complete the bell curve below.

Ms. Payne has the following test scores on her Rationals Test:

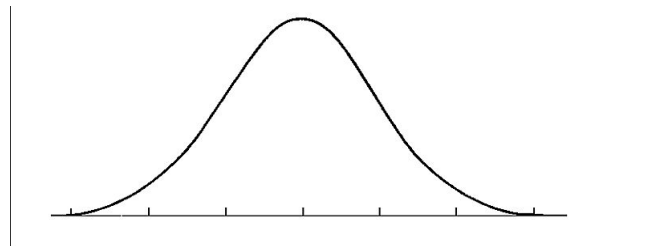
25, 98, 76, 90, 88, 45, 65, 54, 77, 77, 87, 77, 69,
12, 82, 81, 98, 79, 96, 84

a. What is the mean of the test?

b. What is the mode?

c. What is the median?

d. What is the standard deviation? (Use your calculator STAT function)



18. Using the above data

What percentile is a score of 77?

What score is the 40th percentile?

19. Convert from Transformation form to Quotient Form:

$$f(x) = \frac{5}{x+3} - 2$$

