

EQ:

Terms to Know:

- Random Variable --- \_\_\_\_\_ with a \_\_\_\_\_; notation is \_\_\_\_\_

Always \_\_\_\_\_ your \_\_\_\_\_:

Ex:  $X =$  \_\_\_\_\_

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- Discrete Random Variables --- \_\_\_\_\_ number of \_\_\_\_\_;  
corresponds to \_\_\_\_\_ on the number line

Recall: **Properties of a Probability Distribution**

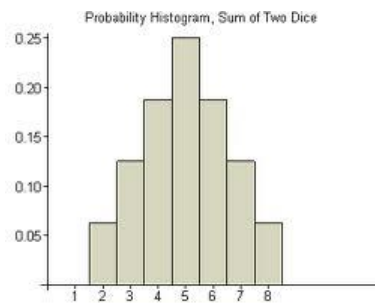
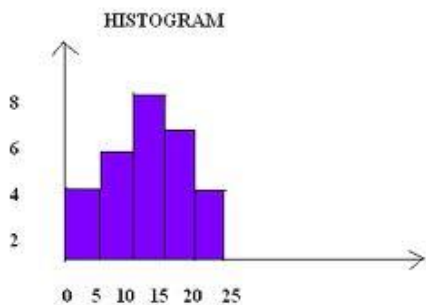
- 1) \_\_\_\_\_ 2) \_\_\_\_\_

Ex. The following table represents a probability distribution for a DRV,  $X$ . What is  $P(X = 6)$ ?

$X$	2	3	4	5	6
$P(x)$	.15	.1	.2	.2	?

\_\_\_\_\_  create \_\_\_\_\_

RECALL: Frequency vs Relative Frequency



❖ In class: p. 470 #2

a) Create the *sample space*.  $S =$  \_\_\_\_\_

b) Create a probability distribution for this sample space.

X	0	1	2	3
P(X)				

p. 470 #3

a) Write your answer 2 ways. \_\_\_\_\_

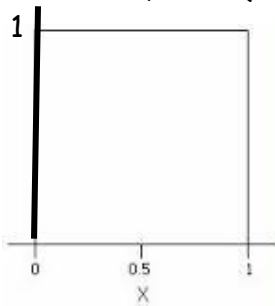
b)

Continuous Random Variable --- assumes \_\_\_\_\_ associated with \_\_\_\_\_ on the \_\_\_\_\_; \_\_\_\_\_ number of \_\_\_\_\_

Probability Distribution of a CRV --- defined by a \_\_\_\_\_

Recall: \_\_\_\_\_ = \_\_\_\_\_

Ex. For the CRV X, find  $P(X = 0.8)$ .

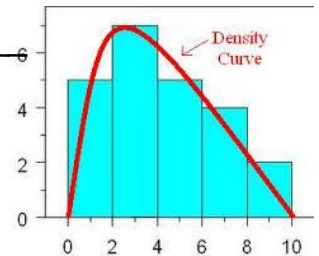


$$P(0.79 < X < 0.81) = \underline{\hspace{2cm}}$$

$$P(0.799 < X < 0.801) = \underline{\hspace{2cm}}$$

$$P(0.7999 < X < 0.8001) = \underline{\hspace{2cm}}$$

\*\*\*As  $X \rightarrow 0.8$ ,  $P(X = 0.8) \rightarrow$  \_\_\_\_\_



Therefore: \_\_\_\_\_ exists at \_\_\_\_\_ values of X on a CRV density curve. WHY??

No \_\_\_\_\_ between \_\_\_\_\_ and \_\_\_\_\_

No \_\_\_\_\_ between \_\_\_\_\_ and \_\_\_\_\_

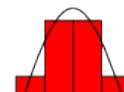
➤ Assignment: p. 475 #7,8

Recall: Normal Distribution  $N(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$

$P_{0.5}(n | 15)$

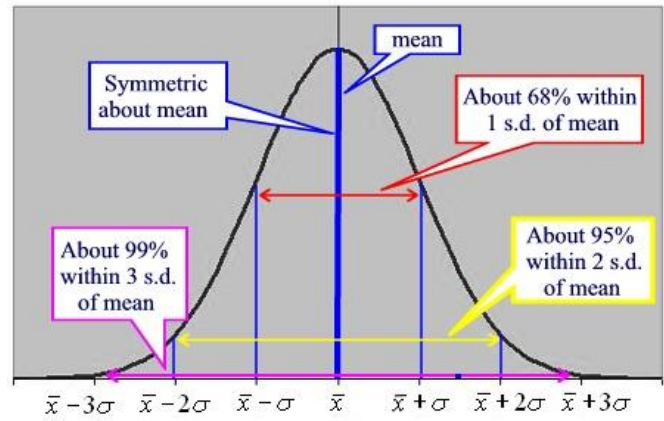
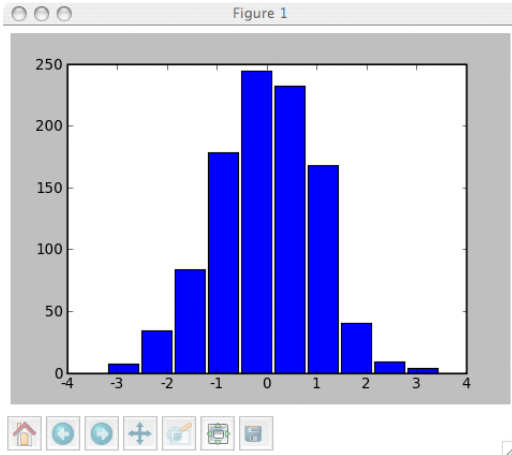
0.2

0.15



Standard Normal Distribution

$N(\underline{\quad}, \underline{\quad})$



Assignment: p. 478 #12, 13, 15, 17