

Unit 5 - Extra Practice #1

For each set of data, find the following: mean, standard deviation, and 5-number summary. Also, create a dot plot and a box-and-whisker plot (on separate number lines).

1) Goals in a Hockey Game

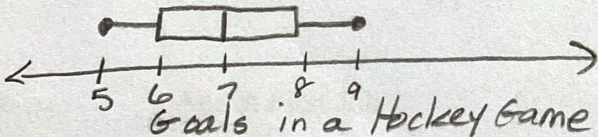
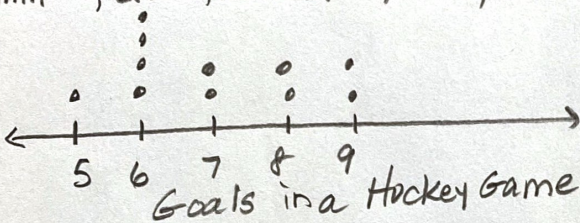
6 6 7 7 5 8 6 9
9 8 6 $n=11$, so $n-1=10$

mean = $\frac{77}{11}$
 $\bar{x} = 7$

$(5-7)^2 = 4$
 $4(6-7)^2 = 4$
 $2(7-7)^2 = 0$

$2(8-7)^2 = 2$
 $2(9-7)^2 = 8$
 $\sqrt{\frac{18}{10}}$
 $s = 1.34$

5, 6, 6, 6, 6, 7, 7, 8, 8, 9, 9
min = 5, Q1 = 6, median = 7, Q3 = 8, max = 9



3) Hits in a Round of Hacky Sack

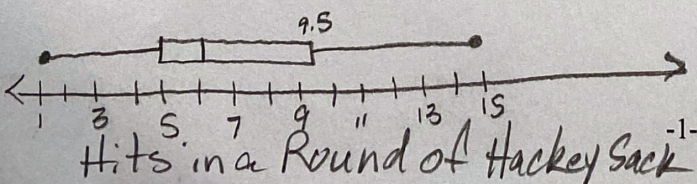
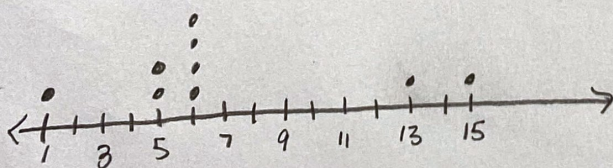
6 13 5 6 5 6 1 15
6 $n=9$, so $n-1=8$

mean = $\frac{63}{9}$
 $\bar{x} = 7$

$(1-7)^2 = 36$
 $2(5-7)^2 = 8$
 $4(6-7)^2 = 4$
 $(13-7)^2 = 36$
 $(15-7)^2 = 64$
 $\frac{148}{8}$
 $\sqrt{\frac{148}{8}}$
 $s = 4.30$

1, 5/5, 6/6, 6/6, 13, 15
 $\frac{6+13}{2} = 9.5$
min = 1, median = 6
Q1 = 5, Q3 = 9.5
max = 15

Hits in a Round of Hacky Sack



2) Hits in a Round of Hacky Sack

3 17 18 6 5 8 4 15
0 6 6 $n=11$, so $n-1=10$

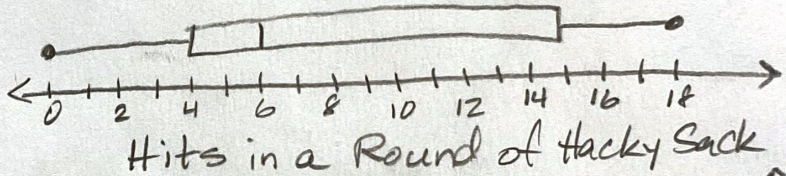
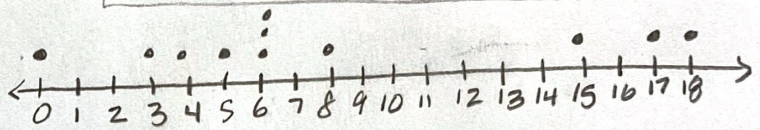
mean = $\frac{88}{11}$
 $\bar{x} = 8$

$(0-8)^2 = 64$
 $(3-8)^2 = 25$
 $(4-8)^2 = 16$
 $(5-8)^2 = 9$
 $3(6-8)^2 = 12$
 $(8-8)^2 = 0$
 $(15-8)^2 = 49$
 $(17-8)^2 = 81$
 $(18-8)^2 = 100$
 $\frac{356}{10}$
 $s = 5.97$

0, 3, 4, 5, 6, 6, 6, 8, 15, 17, 18

min = 0, Q1 = 4, median = 6, Q3 = 15, max = 18

Hits in a Round of Hacky Sack



4) Age at First Job

16 14 14 14 16 21 12
13 13 12 $n=10$, so $n-1=9$

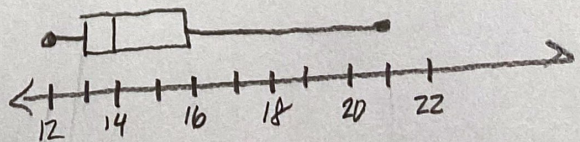
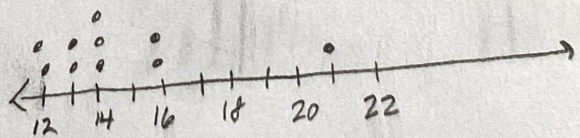
mean = $\frac{145}{10}$
 $\bar{x} = 14.5$

$(12-14.5)^2 = 6.25$
 $2(13-14.5)^2 = 4.5$
 $3(14-14.5)^2 = 0.75$
 $2(16-14.5)^2 = 4.5$
 $(21-14.5)^2 = 42.25$
 $\frac{64.5}{9}$
 $s = 2.68$

12, 12, 13, 13, 14, 14, 14, 16, 16, 21

min = 12, Q1 = 13, median = 14, Q3 = 16, max = 21

Age at First Job



Age at First Job