Today's Plan:

Learning Target (standard): I will calculate the 5-number summary for a set of data and use it to create a box-and-whisker plot.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, take notes over new material and complete practice problems over new concepts.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over new concepts.

Assessment: Board work, homework check and homework assignment

Differentiation: Students will work at the board, go over and correct homework at their seats, actively engage in lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.

NAME _____ #147

BELL RINGER

1.) Solve the system. $y = 3x + 1$, $y = 3x - 5$

$3x+1=3x-5$

$1 \neq -5$

inconsistent

no solution

2.) Is (-7, 2) a solution to the equation $x + 2y = 16$?

not a solution

$-7+2(2) \stackrel{?}{=} 16$

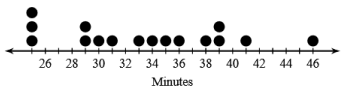
$-7+4 \neq 16$

3.) Simplify $2(a - 3) + 7a$

$2a-6+7a$

$9a-6$

3) Time to Run 5km



1) 25, 25, 25, 29, 29, 30, 31, 33, 34, 35, 36, 38, 39, 39, 41, 46

2) Mean = $\frac{535}{16} = 33.438$ minutes

3) median = $\frac{33+34}{2} = 33.5$ minutes

4) mode = 25 minutes

5) range = 46 - 25 = 21 minutes

Age Breakdown of Customers

Stem	Leaves
0	
1	5 9
2	3 3 6 7 8 8
3	0 1 1 1 2 5 6 7
4	0 0 4 5 8
5	
6	0 0 0

Key: **1** | **5** represents the age of 15

Find the mean, median & mode.

1) 15, 19, 23, 23, 26, 27, 28, 28, 30, 31, 31, 31, 32, 35, 36, 37, 40, 40, 44, 45, 48, 60, 60, 60

2) mean = $\frac{849}{24} = 35.375$ years

3) median = $\frac{31+32}{2} = \frac{63}{2} = 31.5$ years

4) mode = 31 years & 60 years

5-Number Summary:

* the data points must be listed in numerical order first *

minimum = the smallest number in the data set

1st quartile = the median of the first half of the data

2nd quartile = the median of the data set

3rd quartile = the median of the second half of the data

maximum = the largest number in the data set

Inter-quartile range = the 3rd quartile - the 1st quartile

* Be sure to include ALL units on final answers *

* Used to create box-and-whisker plots *

Calculate the 5-number summary for the given data set. Use the 5-number summary to create a box-and-whisker plot.

~~14~~ ~~25~~ ~~8~~ ~~31~~ ~~30~~ ~~11~~ ~~21~~

8, 11, 14, 21, 25, 30, 31

① minimum = 8 - hash mark

④ 1st quartile = 11

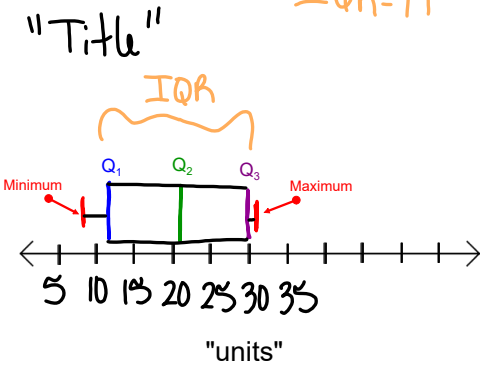
② 2nd quartile = 21

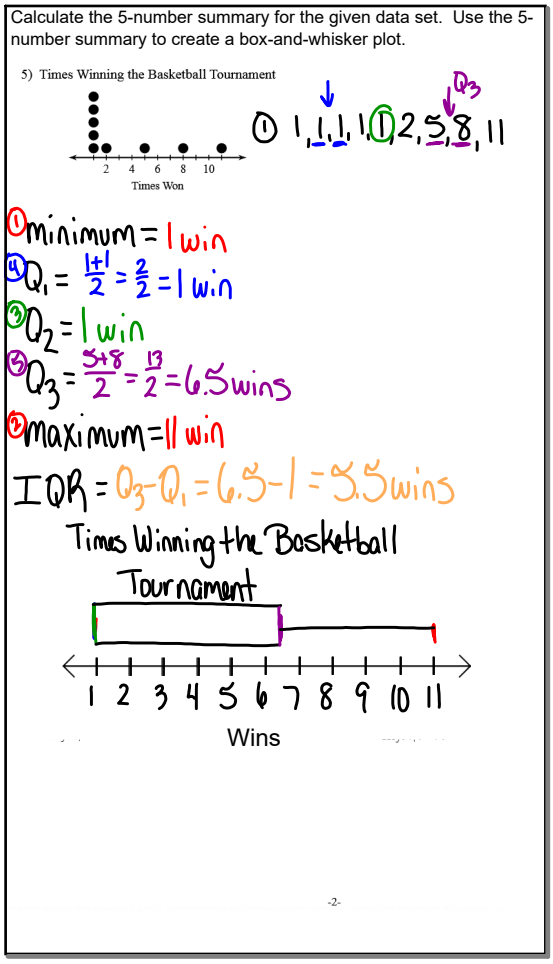
③ 3rd quartile = 30

② maximum = 31 - hash mark

Inter-quartile range = $Q_3 - Q_1 = 30 - 11$

IQR = 19





Calculate the 5-number summary for the given data set. Use the 5-number summary to create a box-and-whisker plot.

5) Times Winning the Basketball Tournament

① 1, 1, 1, 1, ② 2, ③ 5, ④ 8, ⑤ 11

① Minimum = 1 win

② $Q_1 = \frac{1+1}{2} = \frac{2}{2} = 1$ win

③ $Q_2 = 1$ win

④ $Q_3 = \frac{5+8}{2} = \frac{13}{2} = 6.5$ wins

⑤ Maximum = 11 win

$IQR = Q_3 - Q_1 = 6.5 - 1 = 5.5$ wins

Times Winning the Basketball Tournament

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Assignment:

Box-and-Whisker Plots

#1-4

* Write the data in numerical order first and then write out the 5-number summary and the IQR. Use these to create a box-and-whisker plot *