

Math Analysis

Name _____

Midterm Exam Prep Worksheet

1. Given $\csc A = -\frac{5}{4}$ in Q III, and $(-2, \sqrt{5})$ is on the terminal side of B, find the **exact** values of: (Do background info here)

a. $\sin (A + B)$

b. $\cos (A - B)$

c. $\tan (A + B)$

d. $\csc (A + B)$

2. Find **the general solutions** in degrees to the following equations:

a. $\cos 30^\circ \cos 2x - \sin 30^\circ \sin 2x = \frac{1}{\sqrt{3}}$ for $x \in \{\text{Reals}\}$

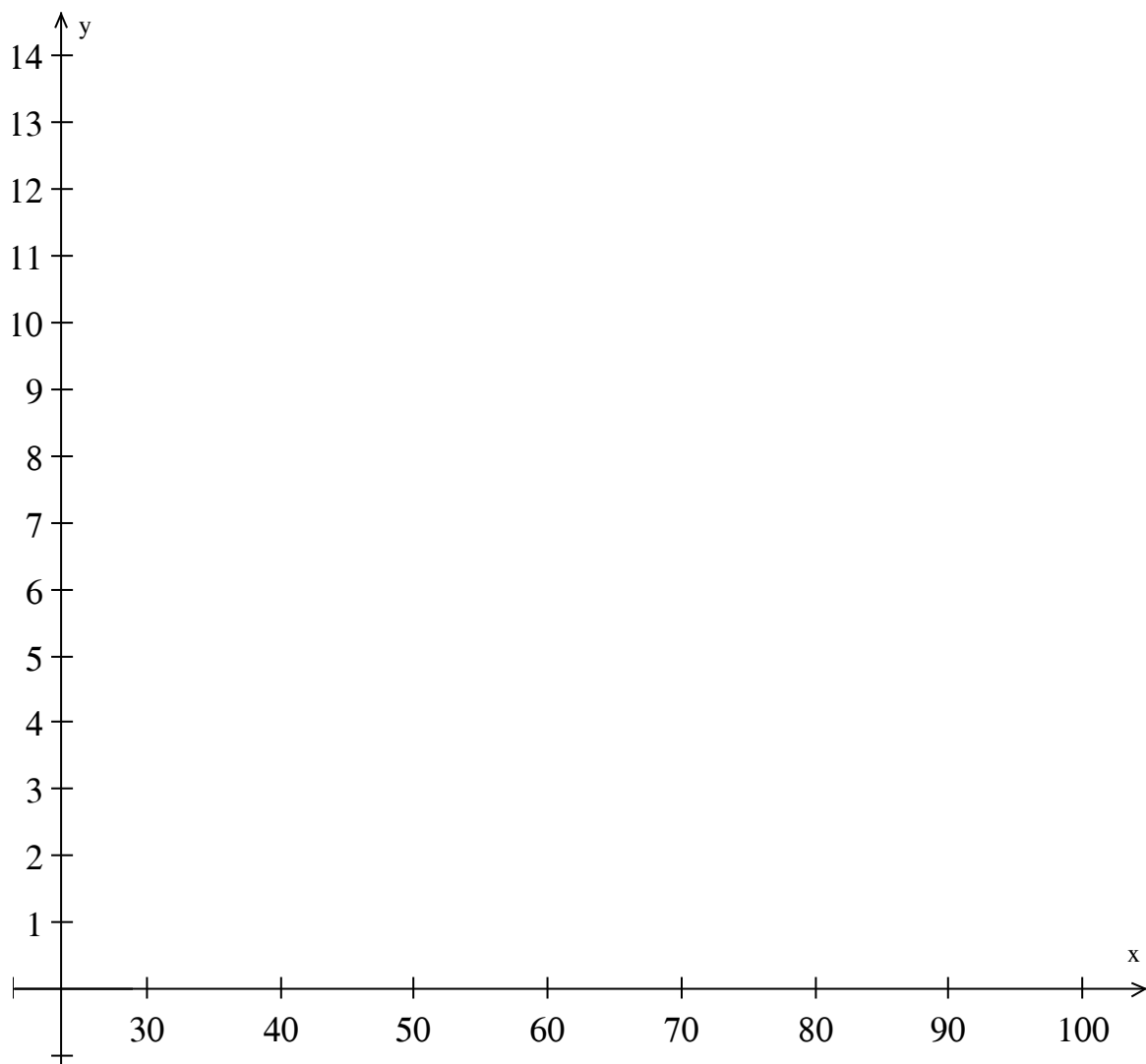
b. $\cos x \sin 70^\circ - \sin x \cos 70^\circ = -\frac{1}{2}$ for $x \in \{0^\circ, 360^\circ\}$

Jeff Mullen's fantasy league points have a week by week total shown below.

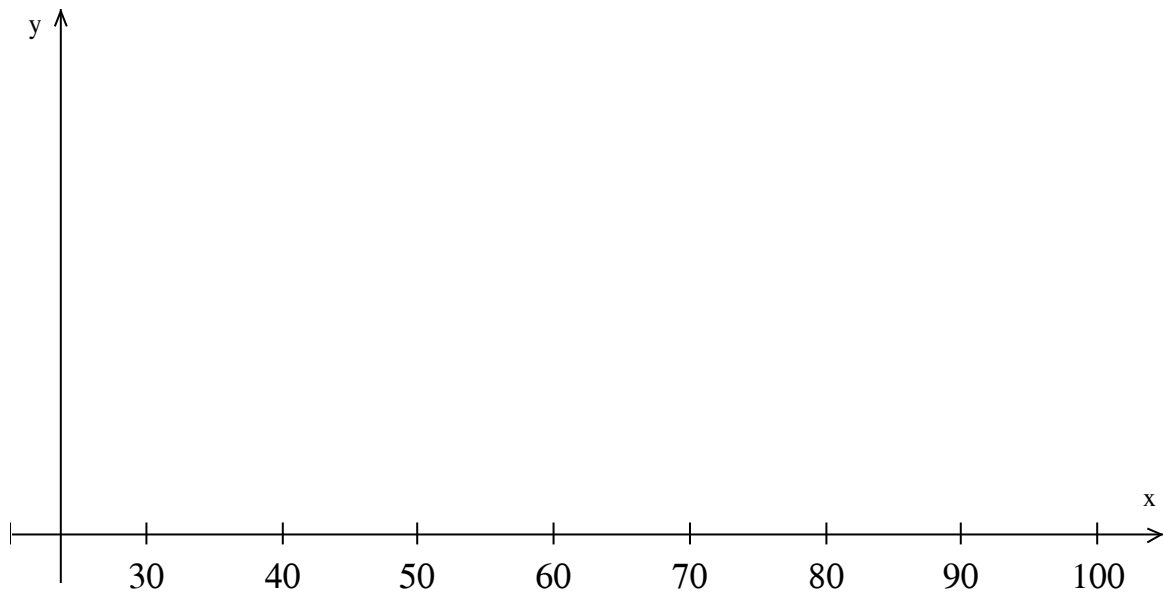
3. Make a stem-leaf plot of these values in the given space below.

Week	Points
1	35
2	73
3	72
4	59
5	63
6	81
7	84
8	73
9	75
10	64
11	83
12	93
13	81
14	83

4) Construct a histogram of the data above according to the labels on the x -axes. Label the y -axes accurately



5) On the axes below, draw a box plot of the data. Indicate the values of the five number summary



Indicate and justify any outliers in this data

For this data, would the mean/standard deviation be a more appropriate measurement than the five-number summary? Explain your answer. You may use the calculator short cuts to mean/SD if necessary.

- 6) Take all the numbers from the box plot (including any outliers you may or may not have found) and calculate the standard deviation of those numbers showing all steps