**Midterm Review 2**

**Unit 1 and 2 Probability**

1) Terry is getting supplies for a construction project. There are 5 hammers, 6 drills and 3 ladders to choose from. If he wants one of each, how many possible options are there?

3) In a class of 18 students the teacher wants to form a group of 4 to answer homework questions. How many different possible groups are there?

5) There are 15 runners in a race, how many different ways could they place 1st, 2nd and 3rd?

7) A company ships bags of chips. In one shipment there are 30 bags and it is estimated that 6 are under filled. What is the probability that someone picking out 4 bags gets all under filled bags?

9) When rolling a die what is the probability of rolling a 5 or 6?

10) James has a bag of marbles. There are 4 red, 5 green and 6 blue marbles. What is the probability of him selecting 3 red marbles if he replaces after each selection?

11) … what is the probability of selecting 3 green marbles if he does replace after each selection?

12) … what is the probability of selecting 4 marbles and getting 2 red and 2 blue?

13) … what is the probability of selecting 4 marbles and getting all green or all blue?

14) … what is the probability of selecting 4 marbles and getting exactly 3 green?

**Unit 3 Stats**

{56, 65, 76, 77, 77, 78, 83, 85, 87, 88, 90, 90, 90, 95, 100}

14) Find the mean, median and mode.

15) Find the range, IQR, standard deviation and variance.

16) Create a box plot for the data

17) What percent of values are above the 3rd quartile?

20) What percent of values are below the median?

21) A course has an average on a test of 83, 1000 testers, with a standard deviation of 4 points. Create and label a normal distribution:

22) What percent of students scored above a 79?

23) What percent of students scored between a 75 and an 87?

26) How Many students scored above an 87?

27) How Many students scored between an 83 and 91?

**Unit 4 Right Triangle Trig**

34) Reference angle for 79

35) Reference angle for 256

36) Reference angle for 145

37) Reference angle for 299

38) Coterminal angle for 4560

39) Coterminal angle for - 3120

41) Find the 6 trig ratios from (-5, 12)

42) If sinA = 4/7, find the other 5 ratios

43) Solve the triangle: C = 90, a = 12 and B = 32

44) Solve the triangle: C = 90, a = 8 and b = 5