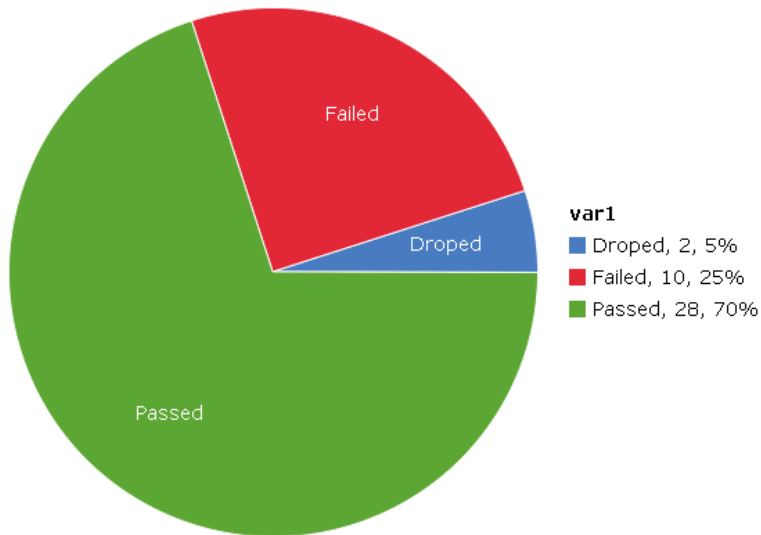
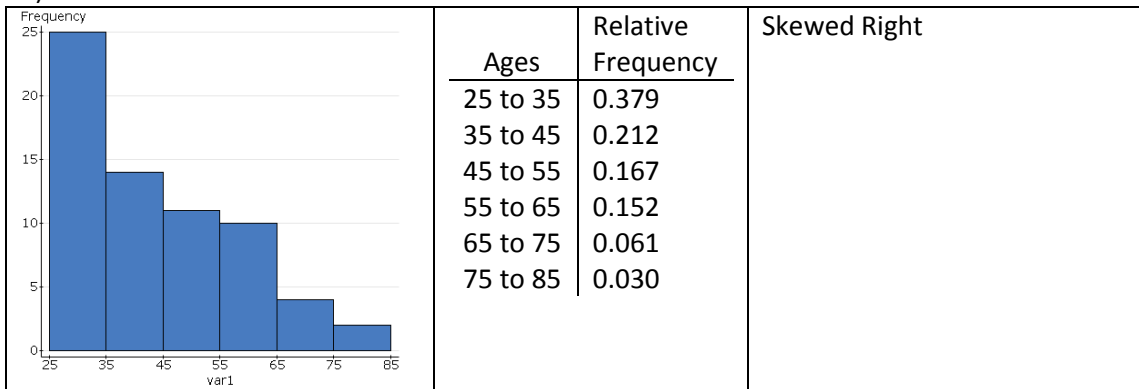


Math 21 Midterm Review

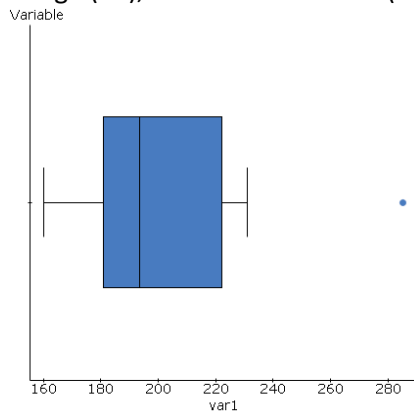
- 1) Inferential 2) Ordinal 3) Ratio 4) Nominal 5) Ratio 6) Convenience
7)



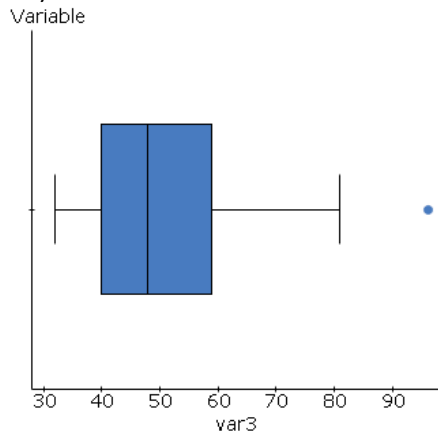
8)



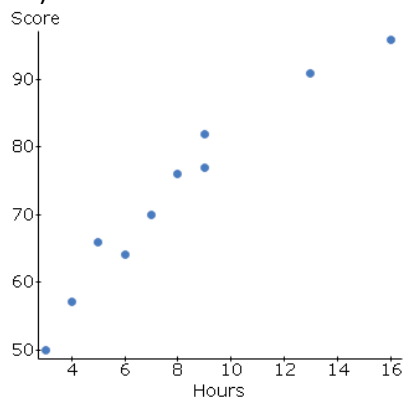
9) Mean (202.5), Median (193.5), Mode (197), Q1 (181), Q3 (222), Range (125), Interquartile Range (41), Standard Deviation (35.65), Variance (1270.93)



10) Min: 32 Q1: 40 Median: 48 Q3: 59 Max: 96



11)



$r = 0.969$, there is a positive linear association.

12)

a) Test 2 Score = $-49.597365 + 1.5073206$ Test 1 Score

b) Slope: 1.507. For every additional point on Test 1, we can expect the student to score 1.507 points higher on Test 2.

c) Test 2 Score = $-49.597 + 1.507(80) = 70.963$ or approximately 71 points.

13) ${}_8C_3 = 56$

14) ${}_{12}P_4 = 11,880$

15) $5 \cdot {}_{11}C_4 = 1650$

16) a) $0.5 + 0.3 - 0.2 = 0.6$

b) $\frac{0.2}{0.5} = 0.4$

17) $\frac{5}{12} \cdot \frac{4}{11} \cdot \frac{3}{10} \cdot \frac{2}{9} = \frac{1}{99}$

18) 0.0804

19) 0.9102

20) 0.9915

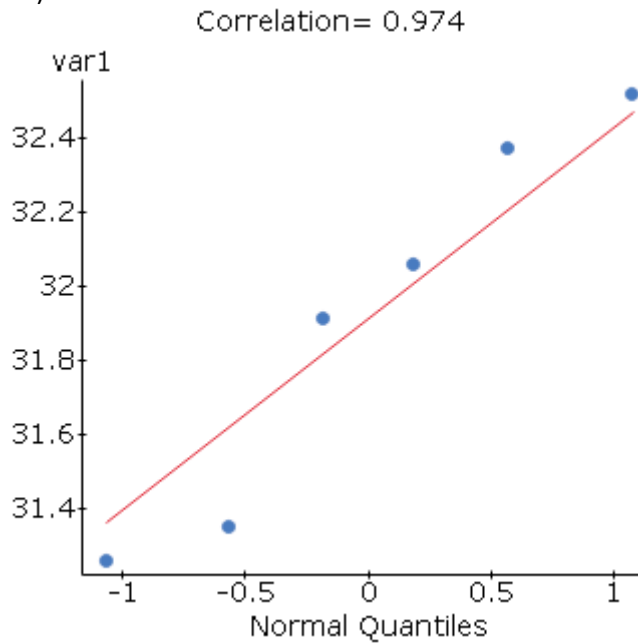
21) 0.2314

22) 0.3233

23) 0.1049

24) 0.0409

- 25) 0.7580
- 26) 66.088"
- 27) 0.9342
- 28)



The critical value for a sample size of $n = 6$ is 0.888. Since the value of r (0.974) is greater than the critical value, we can conclude that the data come from a population that is normally distributed.