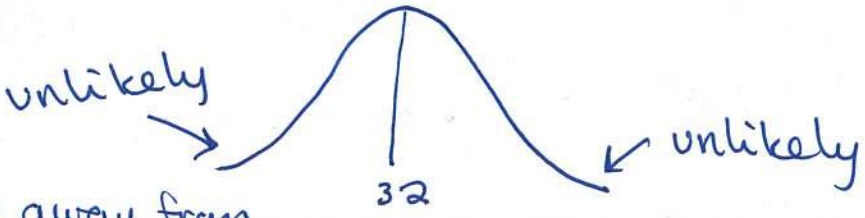
Normal Distribution and intro to trig homework **Name:** Answers

1) A set of scores with a normal distribution has a mean of 32 and a standard deviation of 3.7. Which score could be expected to occur the *least* often?

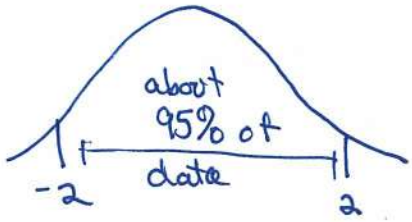
1) 26
2) 29
3) 36
4) 40



furthest away from mean ∴ least likely

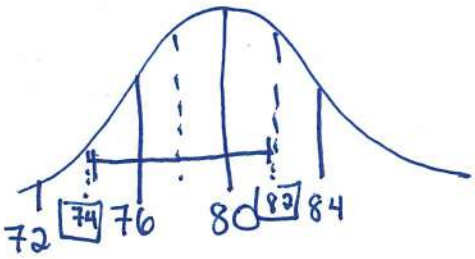
2) If the mean of a test score is 30 and the standard deviation is 3.7, which score could be expected to occur less than 5% of the time?

1) 35
2) 33.8
3) 25
4) 22



A data pt. beyond 2 s.d. would occur less than 5% of the time.

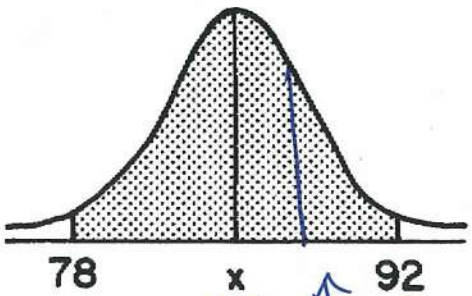
3) A set of normally distributed student test scores has a mean of 80 and a standard deviation of 4. Determine the probability that a randomly selected score will be between 74 and 82.



9.2% + 15% + 19.1% + 19.1%

= 62.4%

4) In the accompanying diagram, the shaded area represents approximately 95% of the scores on a standardized test. If these scores ranged from 78 to 92, which could be the standard deviation?



85

2 s.d.

1 s.d would be 3.5

mean is halfway between 78 and 92

1) 3.5
2) 7.0
3) 14.0
4) 20.0

(over)