

1. The distribution of heights of adult American men is approximately normal with mean 69 inches and standard deviation 2.5 inches. Draw a normal curve on which this mean and standard deviation are correctly located (Hint: Draw the curve first, locate the points where the curvature changes, then mark the horizontal axis)

2. The distribution of heights of adult American men is approximately normal with mean 69 inches and standard deviation 2.5 inches. Use the 68-95-99.7 rule to answer the following questions and JUSTIFY your answers.

A. What percent of men are taller than 74 inches?

B. Between what heights do the middle 95% of men fall?

C. What percent of men are shorter than 66.5 inches?

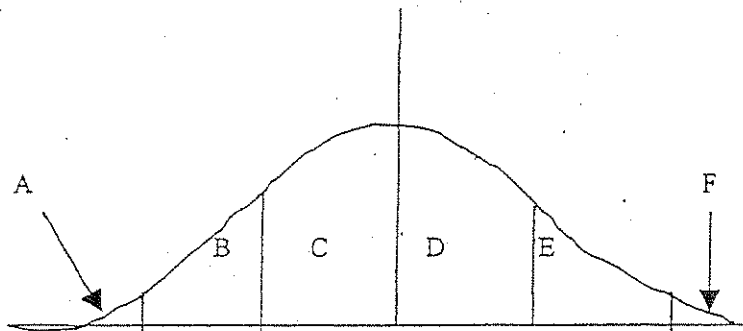
3. Scores on the Wechsler Adult Intelligence Scale (WAIS, a standard "IQ test") for the 20 to 34 age group are approximately normally distributed with a mean of 110 and a standard deviation of 25. Use the 68-95-99.7 rule to answer the following questions and JUSTIFY your answers

A. About what percent of people in this age group have scores above 110?

B. About what percent have scores above 160?

C. In what range do the middle 95% of all IQ scores lie?

2 For the Normal distribution shown, find the following:



The probability of a score falling:

- A. In area A ?
- B. In area C ?
- C. In area C or D?
- D. In area A, B, or C?
- E. In area E?
- F. In Area A or F?
- G. Below Area F?
- H. Above Area B?

3 If the mean of the distribution above is 50 and the standard deviation is 8, at what value does the line separating area E from area F fall?

4 How many standard deviations would a value of 62 be from the mean?

5. How many standard deviations would a value of 40 be from the mean?