CC Algebra 2H HW #_____ Worksheet 8-7X

z	−2.5	−2	−1.5	−1	−0.5	0	0.5	1	1.5	2	2.5
Area	0.01	0.02	0.07	0.16	0.31	0.5	0.69	0.84	0.93	0.98	0.99

The heights of players in a basketball league have a mean of 77 inches and a standard deviation of 4 inches. Estimate the given probability for the height of a randomly selected player.

Use the z-score table above and the formula $z = \frac{x-\mu}{\sigma}$. Show work. Express answers as decimals.

1. His height is below 71 inches.

2. His height is at most 83 inches

3. His height is between 69 inches and 75 inches.

4. His height is at least 73 inches.

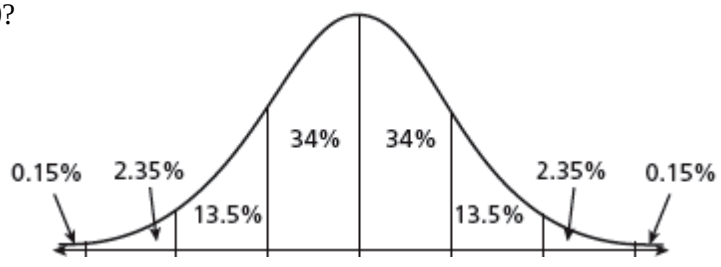
5. His height is between 71 and 85 inches.

6. His height is less than 71 inches or greater than 85 inches.

The current SAT test is designed so that scores are normally distributed with a mean of 500 and a standard deviation 100. Find each percent. Show work.

7. What percent of SAT scores are between 300 and 500?

8. What percent of SAT scores are below 700?



9. What percent of SAT scores are less than 400 or greater than 600?