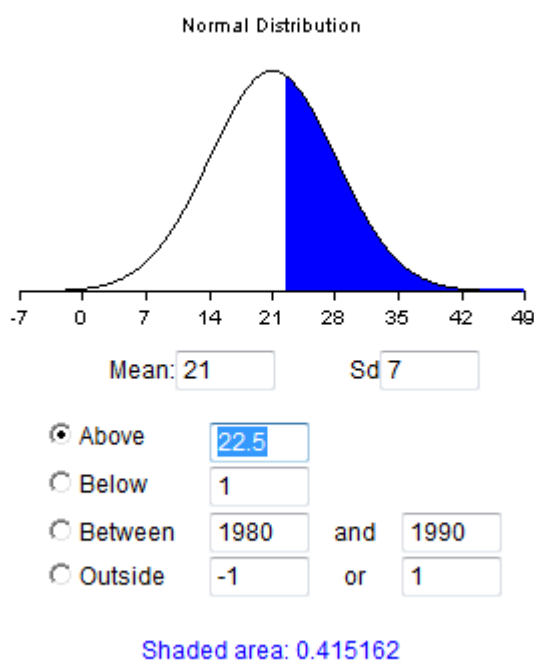


The mean amount purchased by a typical customer at Churchill's Grocery Store is \$21.00 with a standard deviation of \$7.00. Assume the distribution of amounts purchased follows the normal distribution. For a sample of 42 customers, answer the following questions.

(a) What is the likelihood the sample mean is at least \$22.50? (Round z value to 2 decimal places and final answer to 4 decimal places.)

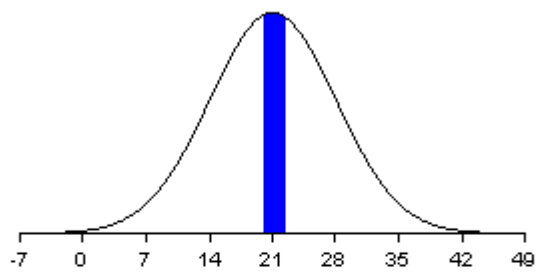
Probability 41.52%



(b) What is the likelihood the sample mean is greater than \$20.00 but less than \$22.50? (Round z value to 2 decimal places and final answer to 4 decimal places.)

Probability 14.16%

Normal Distribution



Mean:

Sd

Above

Below

Between and

Outside or

Shaded area: 0.141636