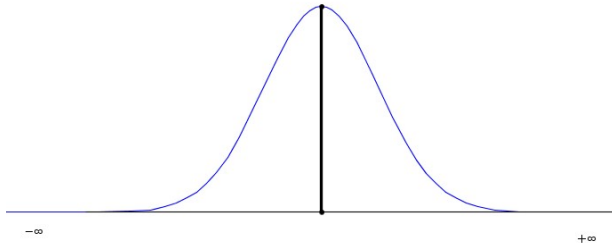


GUIDED NOTES Applications of Normal Curves 11-12-17

Residents of a small town have savings which are normally distributed with a mean of \$4000 and a standard deviation of \$800.

1. What is the percentage of townspeople have savings greater than \$4200? \_\_\_\_\_

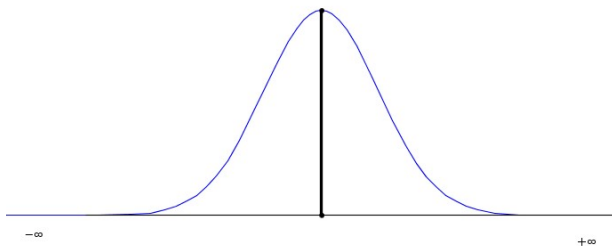
2. Shade and label the related normal curve (label EVERYTHING)



3. State the related Z score from the CHART  $z =$  \_\_\_\_\_

4. A townspeople is chosen at random. What is the probability that townspeople has savings between \$3300 and \$5000? \_\_\_\_\_

5. Shade and label the related normal curve (label EVERYTHING)

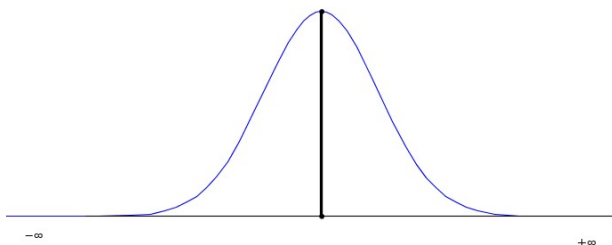


6. State the related Z scores  $z =$  \_\_\_\_\_ &  $z =$  \_\_\_\_\_

7. The percentage of townspeople with savings less than  $d$  dollars is 93.04%. Find the value of  $d$ .

$d =$  \_\_\_\_\_

8. Shade and label the related normal curve (label EVERYTHING)



9. State the related Z score from the CHART  $z =$  \_\_\_\_\_

The height of a plant is normally distributed and typically is 18.6 inches with a standard deviation of 1.5 inches:

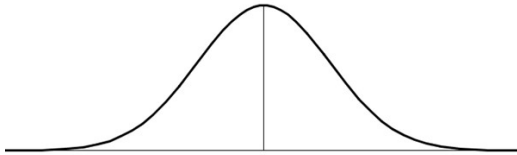
10. You randomly selected a plant in the top 20% of all plants of this type

What is the probability statement for this scenario? \_\_\_\_\_

State the related z score = \_\_\_\_\_

What is the associated height with this problem? \_\_\_\_\_

Sketch the scenario on the provided normal curve (label EVERYTHING)



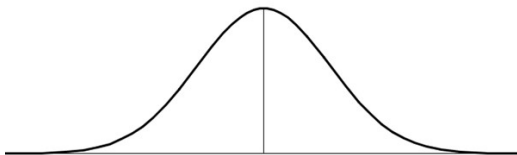
11. You randomly selected a plant in the bottom 18% of all plants of this type

What is the probability statement for this scenario? \_\_\_\_\_

State the related z score = \_\_\_\_\_

What is the associated height with this problem? \_\_\_\_\_

Sketch the scenario on the provided normal curve (label EVERYTHING)



12. You randomly selected a plant that is between 17.5 inches and 18 inches of all plants of this type

What is the probability statement for this scenario? \_\_\_\_\_

State the related z score = \_\_\_\_\_

What is the associated probability with this problem? \_\_\_\_\_

Sketch the scenario on the provided normal curve (label EVERYTHING)

