

Name: \_\_\_\_\_

Date: \_\_\_\_\_

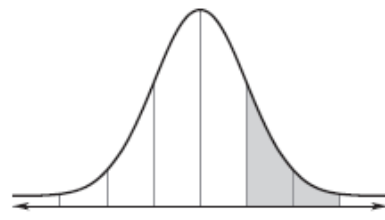
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**Normal Curve:**

1.



2.



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3. A normal distribution has a mean of 18 and a standard deviation of 3. Find the probability that a randomly selected  $x$ -value from the given distribution is in the interval.

a)

b)

c)

d)

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4. The heights of 3000 women at a particular college are normally distributed with a mean of 65 inches and a standard deviation of 2.5 inches

a) About what percent of college women have heights below 70 inches?

b) About how many college women have heights between 60 inches and 65 inches?

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5. A particular leg bone for dinosaur fossils has a mean length of 5 feet with standard deviation of 3 inches. What is the probability that a leg bone is less than 62 inches?
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6. The weight of chocolate bars from a particular chocolate factory has a mean of 8 ounces with standard deviation of .1 ounce. What is the probability that a randomly selected bar is between 7.85 and 8.15 ounces?
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7. The grades on a statistics midterm exam were normally distributed with a mean of 72 and a standard deviation of 8.
- What is the proportion of students received a B grade.
  - What is the probability that a randomly selected student received between a 65 and 85?
  - What is the proportion of students that failed the exam?
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