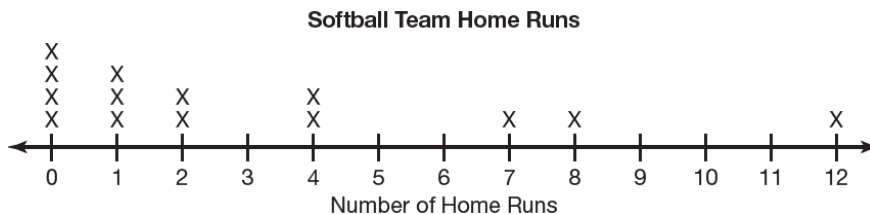


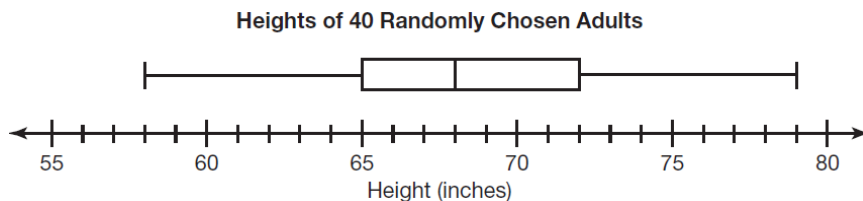
8.1.D2 – REPRESENTING DATA

Analyze the given dot plot which displays the number of home runs by each of the girls on the softball team this season. Use the dot plot to answer each question.



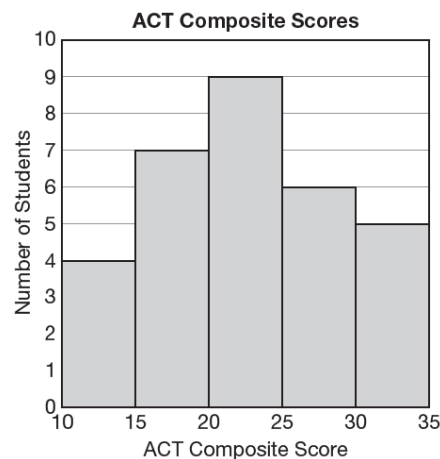
- Describe the distribution of the data in the dot plot and explain what it means in terms of the problem situation.
- How many players are one the softball team?
- How many players hit more than 2 home runs?
- How many players hit at least 1 home run?
- How many players hit more than 1 and fewer than 9 home runs?
- How many players scored more than 12 home runs?

Analyze the given box-and-whisker plot which displays the heights of 40 randomly chosen adults. Use the box-and-whisker plot to answer each question.



- Describe the distribution of the data in the box-and-whisker plot and explain what it means in terms of the problem situation.
- What is the height range of the middle 50% of the surveyed adults?
- What is the height of the tallest adult surveyed?
- How many of the surveyed adults are at least 58 inches tall?
- What percent of the surveyed adults are 68 inches tall or shorter?

Analyze the given histogram which displays the ACT composite score of several randomly chosen students. Use the histogram to answer each question.



- Describe the distribution of the data in the histogram and explain what it means in terms of the problem situation.
- How many students are represented by the histogram?
- How many of the students had an ACT composite score of at least 20?
- How many more students had an ACT composite score between 15 and 20 than had a composite score between 30 and 35?

Spiral Review – Refer to your 1st Semester Summary or your quadratics card.

16. Four students in Ms. Smith’s Algebra 1 class rewrote the expression $x^3 + 4x^2 - 12x$ in four different ways, as shown. Which student’s rewritten expression is *not* equivalent to the original expression?

Student	Rewritten Expression
Jose	$x(x^2 + 4x - 12)$
Maria	$(x^2 + 6x)(x - 2)$
Dante	$(x^2 - 2)(x + 6x)$
Alex	$x(x + 6)(x - 2)$

17. If John solved the equation $x^2 - 10x + 8 = 0$ by completing the square, one of the steps in the process would be...

a. $(x - 5)^2 = -8$

b. $(x - 5)^2 = 17$

c. $(x + 4)^2 = 10x$

d. $(x + 4)^2 = 10x + 16$

18. Rashawn recently spent \$100 to open a store selling t-shirts. At his business, he purchases plain t-shirts for \$11 each, prints graphics on them, and then sells them for \$26 each. What is the *minimum* number of t-shirts that Rashawn would need to sell in order to make a profit (total income minus total expenses) of *at least* \$400? Write and solve an inequality.

19. A plumber has a set fee for a house call and charges by the hour for repairs. The total cost of her services can be modeled by $c(t) = 125t + 95$. What statements about this function are true? Select ALL that apply.

a. The total cost is a linear function of the time (in hours).

b. A house call fee costs \$95.

c. The plumber charges \$125 per hour.

d. The number of hours the job takes is represented by t .

20. Which of the equations represent the line passing through the points (2, 3) & (4, -7)? Select ALL that apply.

a. $5x + y = 13$

b. $y + 7 = -5(x - 4)$

c. $y = -5x + 13$

d. $y - 7 = 5(x - 4)$