

8.2.D1 ~ Measure of Center

Past due on _____ Period _____

Create a dot plot of each given data set. Calculate the mean and median. Determine which measure of center best describes each data set. (If necessary, refer to the 8.2 examples "Calculating the Mean & Median of a Data Set" and "Determining the Measure of Center which Best Represents a Data Set" in the Chapter 8 Summary.)

1) Basketball Tournament

School	Appearances	School	Appearances	School	Appearances
Florida A&M	3	Arizona State	13	Wichita State	12
Catholic	1	Cal State Fullerton	2	Drake	4
Butler	13	Mississippi	8	Texas Tech	13
Trinity	1	Rhode Island	8		

2) Academy Awards

Movie	# Awards	Movie	# Awards	Movie	# Awards
From Here to Eternity	8	The Greatest Show on Earth	2	Braveheart	5
Argo	3	Around the World in 80 Days	5	Unforgiven	4
It Happened One Night	5	The Departed	4	Mrs. Miniver	6
Chicago	6				

Construct a box-and-whisker plot for each data set. Then, describe the data distribution - symmetric, skewed right, or skewed left - and interpret its meaning in terms of the problem situation. (If necessary, refer to the 8.1 example "Representing & Interpreting Data Displayed on Box-and-Whisker Plots" in the Chapter 8 Summary.)

3) Age Assumed Office

Senator	Age	Senator	Age
Heidi Heitkamp	57	Bob Menendez	52
Mark Udall	58	Michael Bennet	44
Jeff Flake	50	Chuck Schumer	48
Orrin Hatch	42	Tim Kaine	54
Mark Warner	54	David Vitter	43

4) Average Lifespan

Animal	Years
Canary	20
Trumpeter Swan	33
Cobra	28
Nutria	15
Red Eared Turtle	7
Painted Turtle	11
Superb Parrot	36
Hog	18
Chipmunk	12

SPIRAL REVIEW

- 5) The highest possible grade for a book report is 100. The teacher deducts 10 points each day the report is late. What kind of function describes this situation?
A) linear B) exponential decay C) exponential growth D) quadratic
- 6) Lynn, Jude, and Anne were given the function $f(x) = -2x^2 + 32$, and they were asked to evaluate $f(3)$. Lynn's answer was 14, Jude's answer was 4, and Anne's answer was ± 4 . Who is correct?
- 7) What is the solution to the system of equations?
 $y = 2x + 8$
 $3(-2x + y) = 12$
A) Infinitely many solutions B) $\left(\frac{1}{2}, 9\right)$
C) No solution D) $(-1, 6)$
- 8) Amelia invested \$1000 in an account with a 1.3% interest rate. She made no deposits or withdrawals on the account for 2 years. If interest was compounded annually, what is the account balance after 2 years?
- 9) Jordan works for a landscape company during his summer vacation. He is paid \$12 per hour mowing lawns and \$14 per hour for planting gardens. He can work a maximum of 40 hours per week and would like to earn at least \$250 each week. If m represents the number of hours mowing lawns and g represents the number of hours planting gardens, which system of inequalities represents the problem situation?
A) $m + g \geq 40$ & $12m + 14g \geq 250$ B) $m + g \geq 40$ & $12m + 14g \leq 250$
C) $m + g \leq 40$ & $12m + 14g \geq 250$ D) $m + g \leq 40$ & $12m + 14g \leq 250$
- 10) Morgan throws a ball into the air. The height of the ball above the ground, in feet, is represented by the function $h(t) = -16t^2 + 24t$, where t represents the time in seconds, since the ball was thrown. What is the appropriate domain for this situation?
A) $0 \leq t \leq 9$ B) $0 \leq h \leq 1.5$ C) 0 D) $0 \leq t \leq 1.5$