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STATS, MEAN MEDIAN MODE

2010A

1. Mary's top book shelf holds five books with the following widths, in centimeters: 6, $\frac{1}{2}$, 1, 2.5, and 10. What is the average book width, in centimeters?

(A) 1   (B) 2   (C) 3   (D) 4   (E) 5

2001

1. The median of the list

$$n, n+3, n+4, n+5, n+6, n+8, n+10, n+12, n+15$$

is 10. What is the mean?

(A) 4   (B) 6   (C) 7   (D) 10   (E) 11

2011B

2. Josanna's test scores to date are 90, 80, 70, 60, and 85. Her goal is to raise her test average at least 3 points with her next test. What is the minimum test score she would need to accomplish this goal?

(A) 80   (B) 82   (C) 85   (D) 90   (E) 95

2002B

3. The arithmetic mean of the nine numbers in the set $\{9, 99, 999, 9999, \ldots, 999999999\}$ is a 9-digit number M, all of whose digits are distinct. The number M does not contain the digit

(A) 0   (B) 2   (C) 4   (D) 6   (E) 8

2011B

3. At a store, when a length is reported as x inches that means the length is at least $x - 0.5$ inches and at most $x + 0.5$ inches. Suppose the dimensions of a rectangular tile are reported as 2 inches by 3 inches. In square inches, what is the minimum area for the rectangle?

(A) 3.75   (B) 4.5   (C) 5   (D) 6   (E) 8.75

2013B

3. On a particular January day, the high temperature in Lincoln, Nebraska, was 16 degrees higher than the low temperature, and the average of the high and low temperatures was 3°. In degrees, what was the low temperature in Lincoln that day?

(A) −13   (B) −8   (C) −5   (D) −3   (E) 11

2011A

5. At an elementary school, the students in third grade, fourth grade, and fifth grade run an average of 12, 15, and 10 minutes per day, respectively. There are twice as many third graders as fourth graders, and twice as many fourth graders as fifth graders. What is the average number of minutes run per day by these students?

(A) 12   (B) $\dfrac{37}{3}$ (C) $\dfrac{88}{7}$ (D) 13   (E) 14

2012A

5. Last year 100 adult cats, half of whom were female, were brought into the Smallville Animal Shelter. Half of the adult female cats were accompanied by a litter of kittens. The average number of kittens per litter was 4. What was the total number of cats and kittens received by the shelter last year?

(A) 150   (B) 200   (C) 250   (D) 300   (E) 400

2014A 5. On an algebra quiz, 10% of the students scored 70 points, 35% scored 80 points, 30% scored 90 points, and the rest scored 100 points. What is the difference between the mean and the median of the students' scores on this quiz?

(A) 1   (B) 2   (C) 3   (D) 4   (E) 5

2015A 5. Mr. Patrick teaches math to 15 students. He was grading tests and found that when he graded everyone's test except Payton's, the average grade for the class was 80. After he graded Payton's test, the class average became 81. What was Payton's score on the test?

(A) 81   (B) 85   (C) 91   (D) 94   (E) 95

2016B 5. The mean age of Amanda's 4 cousins is 8, and their median age is 5. What is the sum of the ages of Amanda's youngest and oldest cousins?

(A) 13   (B) 16   (C) 19   (D) 22   (E) 25