13

PERCENT

2005B 6. At the beginning of the school year, Lisa's goal was to earn an A on at least 80% of her 50 quizzes for the year. She earned an A on 22 of the first 30 quizzes. If she is to achieve her goal, on at most how many of the remaining quizzes can she earn a grade lower than an A?

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

2007A 6. At Euclid High School, the number of students taking the AMC10 was 60 in 2002, 66 in 2003, 70 in 2004, 76 in 2005, and 78 in 2006, and is 85 in 2007. Between what two consecutive years was there the largest percentage increase?

(A) 2002 and 2003 (B) 2003 and 2004 (C) 2004 and 2005

(D) 2005 and 2006 (E) 2006 and 2007

2018A 6. Sangho uploaded a video to a website where viewers can vote that they like or dislike a video. Each video begins with a score of 0, and the score increases by 1 for each like vote and decreases by 1 for each dislike vote. At one point Sangho saw that his video had a score of 90, and that 65% of the votes cast on his video were like votes. How many votes had been cast on Sangho's video at that point?

(A) 200 (B) 300 (C) 400 (D) 500 (E) 600

2007A 7. Last year Mr. John Q. Public received an inheritance. He paid 20% in federal taxes on the inheritance, and paid 10% of what he had left in state taxes. He paid a total of $10,500 for both taxes. How many dollars was the inheritance?

(A) 30,000 **(B)** 32,500 **(C)** 35,000 **(D)** 37,500 **(E)** 40,000

2009A 7. A carton contains milk that is 2% fat, an amount that is 40% less fat than the amount contained in a carton of whole milk. What is the percentage of fat in whole milk?

(A) $\frac{12}{5}$ **(B)** 3 **(C)** $\frac{10}{3}$ **(D)** 38 **(E)** 42

2014B 7. Suppose $A > B > 0$ and A is $x\%$ greater than B. What is x?

(A) $100\left(\frac{A-B}{B}\right)$ **(B)** $100\left(\frac{A+B}{B}\right)$ **(C)** $100\left(\frac{A+B}{A}\right)$

(D) $100\left(\frac{A-B}{A}\right)$ **(E)** $100\left(\frac{A}{B}\right)$

2009A 8. Three generations of the Wen family are going to the movies, two from each generation. The two members of the youngest generation receive a 50% discount as children. The two members of the oldest generation receive a 25% discount as senior citizens. The two members of the middle generation receive no discount. Grandfather Wen, whose senior ticket costs $6.00, is paying for everyone. How many dollars must he pay?

(A) 34 **(B)** 36 **(C)** 42 **(D)** 46 **(E)** 48

2009B 8. In a certain year the price of gasoline rose by 20% during January, fell by 20% during February, rose by 25% during March, and fell by $x\%$ during April. The price of gasoline at the end of April was the same as it had been at the beginning of January. To the nearest integer, what is x?

(A) 12 **(B)** 17 **(C)** 20 **(D)** 25 **(E)** 35

2011A

8. Last summer 30% of the birds living on Town Lake were geese, 25% were swans, 10% were herons, and 35% were ducks. What percent of the birds that were not swans were geese?

(A) 20 **(B)** 30 **(C)** 40 **(D)** 50 **(E)** 60

2001

9. The state income tax where Kristin lives is levied at the rate of $p\%$ of the first \$28000 of annual income plus $(p+2)\%$ of any amount above \$28000. Kristin noticed that the state income tax she paid amounted to $(p+0.25)\%$ of her annual income. What was her annual income?

(A) \$28000 **(B)** \$32000 **(C)** \$35000 **(D)** \$42000 **(E)** \$56000

2013A

9. In a recent basketball game, Shenille attempted only three-point shots and two-point shots. She was successful on 20% of her three-point shots and 30% of her two-point shots. Shenille attempted 30 shots. How many points did she score?

(A) 12 **(B)** 18 **(C)** 24 **(D)** 30 **(E)** 36

2013A

10. A flower bouquet contains pink roses, red roses, pink carnations, and red carnations. One third of the pink flowers are roses, three fourths of the red flowers are carnations, and six tenths of the flowers are pink. What percent of the flowers are carnations?

(A) 15 **(B)** 30 **(C)** 40 **(D)** 60 **(E)** 70

2013B

10. A basketball team's players were successful on 50% of their two-point shots and 40% of their three-point shots, which resulted in 54 points. They attempted 50% more two-point shots than three-point shots. How many three-point shots did they attempt?

(A) 10 **(B)** 15 **(C)** 20 **(D)** 25 **(E)** 30