Percents (Intermediate)

1. Which of the following represents the positive number q increased by 8%?
   A. $.08q$
   B. $.93q$
   C. $1.08q$
   D. $8q$
   E. $800q$

2. Last year, Michelle Kwan won 60% of her figure skating tournaments. She placed second or lower 20 times. How many tournaments did she compete in?
   A. 25
   B. 30
   C. 40
   D. 50
   E. 100

3. If 10 is 2% of the number z, what is 50% of z?
   A. 75
   B. 125
   C. 250
   D. 500
   E. 650

4. If 140% of a number is 308, then what is 25% of the number?
   A. 45.5
   B. 49
   C. 50
   D. 52
   E. 55

5. Tom has fundraised $500.00 to buy blankets for the local homeless shelter. Each blanket has a price of $9.00, and Tom will pay a sales tax of 6% of the total price of the blankets. What is the maximum number of blankets Tom can buy?
   A. 50
   B. 51
   C. 52
   D. 53
   E. 54

6. Lydia wants to get some extensions before her date on Friday. At 'Comb As You Are', it will cost Lydia $250 to get her extensions. The salon 'Dye Hard' is offering a 20% discount on all hair treatments. If it normally costs $275 to have extensions done at 'Dye Hard', how much money will Lydia save if she gets her extensions done there compared to if she were to get them done at 'Comb As You Are'?

  A. 5
  B. 25
  C. 30
  D. 75
  E. 195

7. The original price of a coat is t dollars. Lottie bought the coat for 40% less than the original price. What is the price Lottie paid in terms of t?

  A. $.4t$
  B. $.6t$
  C. $40t$
  D. $60t$
  E. $140t$

8. The price of a DVD player was decreased by s% from $300 to $180. What is the value of s?

  A. $.04$
  B. $.66$
  C. 40
  D. 66
  E. 400

9. Cardi B was shopping for a pair of Louboutins. A pair were on sale for 25% off, with her celebrity status getting her an additional 20% discount on the sale price. What percentage was the final price of the Louboutin's in terms of the original price x?

  A. $\frac{1}{5}x$

  B. $\frac{3}{10}x$

  C. $\frac{2}{5}x$

  D. $\frac{9}{20}x$

  E. $\frac{3}{5}x$

10. The amount of people eating avocado on toast for brunch increased by 20% between 2015 − 2016. It then increased 35% from 2016 − 2017. What is the percent increase of people eating avocado on toast between 2015 and 2017?

A. 45%
B. 55%
C. 59%
D. 62%
E. 65%

11. Barack and Joe each ordered a hot dog at a restaurant. The price of Barack's hot dog was y dollars, and the price of Joe's hot dog was 1$ more than the price of Barack's hot dog. If Barack and Joe split the cost of the hot dogs evenly and each paid a 10% tip, which of the following expressions represents the amount, in dollars, each of them paid? (Assume there is no sales tax.)

A. $.1y + .1$
B. $y + .5$
C. $1.1y + .55$
D. $2y + 1$
E. $2.2y + 1.1$

12. In Illinois, Mr. T's ninth-grade class consisting of 24 students was surveyed and 37.5 percent of the students reported that they had at least two siblings. The average ninth-grade class size in the state is 24. If the students in Mr. T's class are representative of students in the state's ninth-grade classes and there are 1,700 ninth-grade classes in the state, which of the following best estimates the number of ninth-grade students in the state who have fewer than two siblings?

A. 5100
B. 15,300
C. 20,400
D. 25,500
E. Cannot be determined from the given information.

13. Sadie's monthly electric bill was $60.74. Her rate increased, and so her monthly bill is now $68.77. To the nearest tenth of a percent, by what percent did the amount of her electric bill increase?

    A. 8%
    B. 9.3%
    C. 11.6%
    D. 13.2%
    E. 14%

14. A local government is forming a committee to discuss plans for the construction of a new baseball stadium. Of those invited to join the committee, 30% are local business owners, 40% are government officials, 10% are citizens, and the remaining 4 are baseball players. How many more government officials were invited to join the committee than citizens?

    A. 3
    B. 4
    C. 5
    D. 6
    E. 20

15. A computer graphics card was on sale for 30% off its original price. If the sale price of the graphics card was $413.00, what was the original price of the card? (Assume there is no sales tax.)

    A. $123.90
    B. $289.10
    C. $536.90
    D. $590.00
    E. $702.10