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## ASSIGNMENT - 4

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### PERCENTAGE

NO. OF QUESTION - 10

1. For the function  $q$ , the value of  $q(x)$  decreases by 45% for every increase in the value of  $x$  by 1. If  $q(0) = 14$ , which equation defines  $q$  ?
  - (A)  $q(x) = 0.55(14)^x$
  - (B)  $q(x) = 1.45(14)^x$
  - (C)  $q(x) = 14(0.55)^x$
  - (D)  $q(x) = 14(1.45)^x$
  
2. The number  $a$  is 110% greater than the number  $b$ . The number  $b$  is 90% less than 47. What is the value of  $a$  ?
  
3. Out of 300 seeds that were planted, 80% sprouted. How many of these seeds sprouted?
  
4. The regular price of a shirt at a store is \$11.70. The sale price of the shirt is 80% less than the regular price, and the sale price is 30% greater than the store's cost for the shirt. What was the store's cost, in dollars, for the shirt?
  
5. Isabel grows potatoes in her garden. This year, she harvested 760 potatoes and saved 10% of them to plant next year. How many of the harvested potatoes did Isabel save to plant next year?
  - (A) 66
  - (B) 76
  - (C) 84
  - (D) 86
  
6. What percentage of 300 is 75?
  - (A) 25%
  - (B) 50%
  - (C) 75%
  - (D) 225%

7. 210 is  $p\%$  greater than 30. What is the value of  $p$  ?
8. A painter charges \$1700 to paint the exterior of a house. The painter must use 57% of this money to purchase supplies for the job. What is the profit that the painter makes?
- (A) \$731  
(B) \$969  
(C) \$1643  
(D) \$2669
9. During his second week on the job, Jason earned \$110. This represented a 25% increase over his earnings of the previous week. How much did he earn during his first week of work?
- (A) \$82.50  
(B) \$85.00  
(C) \$88.00  
(D) \$137.50
10. Mr. Howard was planning on depositing a certain amount of money each month into a college fund for his children. He then decided not to make any contributions during June and July. To make the same annual contribution that he had originally planned, by what percent should he increase his monthly deposits?
- (A)  $16\frac{2}{3}\%$   
(B) 20%  
(C) 25%  
(D)  $33\frac{1}{3}\%$