

- (2 points)** Evaluate:  $14[20 - 9 \div (5 \times 6 - 21) + (64 \div 8) - 1]$ .
- (2 points)** Jenny bought pistachio ice cream costing \$9.57. She gave the cashier \$20.00. How much change did the cashier give back to Jenny?
- (2 points)** Siddarth has \$500. If he spent 35% of his money on a mattress, then how much money does he have left?
- (2 points)** Let

$$A = \text{the missing number in the sequence: } 1, 2, \dots, 8, 16, 32, 64, 128.$$

$$B = 79 - 7 \times 5$$

$$C = \frac{20 + 5 - 13}{4}$$

$$D = 9 + 18 \div 2 - 11$$

Computer the value of  $(B - D - A) \div C$ .

- (3 points)** What is  $15 \times 0.15 + 0.25 \times 0.5$  in decimal form?
- (3 points)** If Stephen is speed walking at a constant rate of 6 miles per hour, then how many minutes will it take for him to speed walk 5 miles?
- (3 points)** Find the sum of the mean and median of the following given data set: (3, 5, 17, 8, 14, 21, 19, 4, 18, 11, 12)
- (3 points)** Sarah went clothes shopping. She bought 12 shirts, 13 pairs of jeans and 7 pairs of shoes. How many different outfits can she wear?
- (4 points)** Let

$$A = \text{the sum of } 223 \text{ and } 767$$

$$B = \text{the product of } 18 \text{ and } 5$$

$$C = \text{the quotient of } 960 \text{ divided by } 32$$

$$D = \text{the remainder when } 13420 \text{ is divided by } 65$$

Find  $C + (A - B) \div D$ .

- (4 points)** Ian sent 1 piece of mail in May, 4 pieces of mail in June, 16 pieces of mail in July, and 64 pieces of mail in August. If this pattern continues, how many pieces of mail will Ian send in September?
- (4 points)** Aditya has a bag filled with marbles. There are 35 marbles in the bag. 16 of the marbles are blue, 5 of them are red and 14 of them are green.

A = What is the probability that Aditya will choose a red marble?

B = What is the probability that Aditya will choose a green marble, if he has chosen all of the red marbles already?

C = What is the probability that Aditya will choose a blue marble, if he has chosen 3 green marbles already?

Find  $AB + C$ .

12. (4 points) Jasmine went to the hair salon and had  $5\frac{1}{12}$  inches of hair cut off. The next day, she went back and asked for another  $2\frac{3}{4}$  inches to be cut off. How much hair, in inches, did she have cut off in all?
13. (5 points) Let

$$A = 58.4 + 35.6$$

$$B = 18.91 - 16.59$$

$$C = 7.7 + 1.5 - 4.6$$

$$D = 31.09 + 24.56 - 52.03$$

Compute  $A + B + C - D$ , in decimal form.

14. (5 points) Cherry and Anvitha went to the grocery store together. Cherry is trying to calculate the percent tax that was put on her purchase of 28 apples. If each apple costs \$1.25, without tax, and the total cost of the apples was \$45.50, with tax, what was the percent tax?
15. (5 points) Let

$$A = \text{the mode of the set: } 1,3,3,4,5,6,8,3,4,7,6,3$$

$$B = \text{the median of the set: } 6,5,9,3,2,3,1,6,4,7,3$$

$$C = \text{the mean of the set: } 1,5,2,7,4,3,8,2,5,7,11$$

$$D = \text{the mean of the set: } 6,9,8,9,4,3,4,2,8,5,8$$

Computer  $BD - AC$ .