## Human Services Cosmetology II Multiple Choice Math Assessment Problems

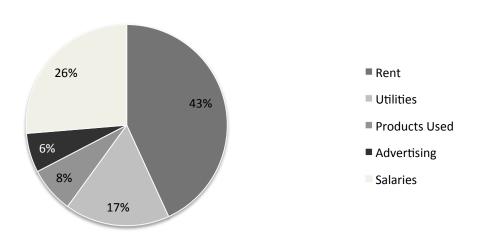


All math problems address TEKS 130.253. Cosmetology II.

- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (B) estimate cost-effective resources to assist with planning the delivery of services.

**Question 1.** Analyze the chart below.

## **Salon Costs**



If rent is the largest cost to the salon at \$3,549 a month, how much does the salon need to make in order to break even?

- a. \$8,253.49
- b. \$8,534.76
- c. \$9,263.33
- d. \$9,346.87
- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (B) estimate cost-effective resources to assist with planning the delivery of services.

**Question 2.** Using information from question #1, how much money would the salon save if the business switched to products that cost 15% less?

- a. \$ 99.04
- b. \$133.44
- c. \$561.24
- d. \$660.28

- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (D) assess time-management principles and techniques to achieve objectives and effectively serve clients.

**Question 3.** Rosario's hair salon makes an average of \$18 profit for every female client *f* and \$10 for every male client *m*. If her salon sees 30 clients in one day and makes \$476 profit, which system of equations could be used to find out how many clients of each gender visited her salon?

a. 
$$m + f = 30$$
  
 $m + f = 476$   
b.  $m + f = 3$   
 $18m + 10f = 476$ 

c. 
$$m + f = 30$$
  
 $10m + 18f = 476$ 

d. 
$$m + f = 476$$
  
 $10m + 18f = 30$ 

- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (D) assess time-management principles and techniques to achieve objectives and effectively serve clients.

**Question 4.** Refer to question #3. Using the correct system of equations, how many male clients and female clients visited her salon that day?

- a. 15 male and 15 female
- b. 10 male and 20 female
- c. 8 male and 22 female
- d. 22 male and 8 female

- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (E) create and maintain records, including electronic records, of client services using safeguarding procedures to store and retrieve personal care client information.

**Question 5.** As an incentive for loyal clients, Joanna has a policy where clients can get a 10% discount on their next appointment's services if they make that appointment before they leave the salon. If 9 of the 12 clients she sees one day make their next appointment before they leave, about how many of the 230 clients in her client base can she expect to utilize this service?

- a. 23
- b. 67
- c. 113
- d. 172

- (4) The student categorizes and judges both the function and application of the tools, equipment, technologies, and materials used in cosmetology. The student is expected to:
  - (F) critique administrative or clerical procedures and systems to provide client satisfaction.

**Question 6.** Analyze the chart below which describes the profit of a hair salon and the number of employees it has.



What kind of correlation exists in the graph?

- a. Positive correlation
- b. Negative correlation
- c. Constant correlation
- d. No correlation

- (4) The student categorizes and judges both the function and application of the tools, equipment, technologies, and materials used in cosmetology. The student is expected to:
  - (F) critique administrative or clerical procedures and systems to provide client satisfaction.

**Question 7.** Based on the chart in #6, which of the following would be a reasonable conclusion?

- a. The more employees the salon has, the greater the profit.
- b. To maximize profit, the salon should employ no more than 6 people.
- c. To maximize profit, the salon should employ no more than 10 people.
- d. The salon made the most profit when it had 9 employees.
- (4) The student categorizes and judges both the function and application of the tools, equipment, technologies, and materials used in cosmetology. The student is expected to:
  - (A) examine and rank vendor resources to provide maximum benefit for clients, service providers, businesses, or organizations.

**Question 8.** Every time Victoria washes her client's hair, she uses 2 ounces of shampoo. If she washes on average 12 clients' hair every day 5 days per week and she buys shampoo in 64 ounce bottles, how many bottles will she use in one year?

- a. 98
- b. 112
- c. 120
- d. 136

- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (B) estimate cost-effective resources to assist with planning the delivery of services.

**Question 9.** Anna bought a case of 24 bottles of shampoo for \$168. She will sell the shampoo bottles for \$12.95 each. If she sells 18 bottles, how much profit will she make?

- a. \$ 76.80
- b. \$107.10
- c. \$142.80
- d. \$233.10
- (1) The student consolidates the employability characteristics of a successful worker in the workplace. The student is expected to:
  - (B) estimate cost-effective resources to assist with planning the delivery of services.

**Question 10.** Grace bought nail polish in bulk to sell in her store. She paid \$22.50 for a case of 50 bottles of nail polish. If she marks up the product by 300%, what will be the selling price of each bottle of nail polish?

- a. \$0.84
- b. \$1.26
- c. \$2.25
- d. \$4.20

## Answer Key

- 1) A
- 2) A
- 3) C
- 4) C
- 5) D
- 6) D
- 7) B
- 8) A
- 9) B
- 10) B