All math problems address TEKS 130.252. Cosmetology I.

(1) The student investigates the employability characteristics of a successful worker in the workplace. The student is expected to:

(C) compare cost-effective resources to assist with planning and delivery of services.

**Question 1.** Ana works for a salon in the mall. She earns an hourly wage of $6.25 from the salon, as well as an 8% commission for each client from the $19.95 price the client pays. If she works 30 hours one week and sees 40 clients, how much did she make in the week?

   a. $ 63.84  
   b. $187.50  
   c. $251.34  
   d. $297.88
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(D) apply the technical knowledge and skills required to be successful in careers in the personal care service area.

**Question 2.** Jade wants to make at least $300 per week. She works at the same salon in the mall where she earns $6.25 per hour and an 8% commission for each client she sees who all pay $19.95 per visit. Which inequality would correctly represent the situation of how many hours (h) she needs to work and clients (c) she needs to see in order to make at least $300 per week?

a. $300 \geq 6.25h + 0.08(19.95c)$

b. $300 \leq 6.25h + 0.08(19.95c)$

c. $300 \geq 6.25h + 0.08 + (19.95c)$

d. $300 \leq 6.25h + 0.08 + (19.95c)$

**Question 3.** Steven owns his own business as a barber. He wants to make sure that he makes enough money to cover his expenses. If he can expect to make $12 per client and his business sees (c) clients per week, which inequality represents what his monthly expenses (E) need to be in order to make a profit?

a. $E > 12c$

b. $E < 12c$

c. $E \geq 12c$

d. $E \leq 12c$
(4) The student describes the function and operates the tools, equipment, technologies, human resources, and materials used in cosmetology. The student is expected to:

(A) locate and compare vendor and sole-source provider resources to maximize benefits for personal care clients, businesses, or organizations;

(B) plan the range of personal care resources needed for business practice in order to access resources at appropriate times.

**Question 4.** Kyla is adding up the bill for her client, who came in for a haircut and also bought a few hair products. Normally, the haircut by itself costs $29.95, but if her client spends over $30 on hair products, she gets a 20% discount on the haircut price. If her client buys a can of hairspray for $12.95, shampoo that costs $10.95 and conditioner that costs $10.95, what is her client’s total bill before taxes?

a. $47.86  
b. $53.85  
c. $58.81  
d. $64.80

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**Question 5.** Mark is adding up the bill for his client, who came in for a perm and also bought a few hair products. The regular price for a perm is $59.00, but if his client spends $40 or more on hair products, she will get a discount of 15% on the price of the perm. If his client buys a bottle of gel-mousse for $21.95 and a shine serum for $9.95, what is his client’s total bill before taxes?

a. $50.15  
b. $80.10  
c. $82.05  
d. $90.90
(4) The student describes the function and operates the tools, equipment, technologies, human resources, and materials used in cosmetology. The student is expected to:

(C) plan and maintain the range of human resources needed for efficient business practice.

**Question 6.** Analyze the chart below.

![Clients per Quarter](chart)

According to the chart, which group of clients (women, men, or children) had the least amount of change over the four quarters?

a. Women  
b. Men  
c. Children  
d. Not enough information given

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**Question 7.** According to the chart in #6, by approximately how many percentage points did female clients decline from the third quarter to the fourth quarter?

a. 24%  
b. 32%  
c. 50%  
d. 115%
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**Question 8.** Analyze the graph below that describes a popular day spa.

![Profit vs Clients Graph](image)

According to the graph, about how much profit can the day spa expect to make from 13 clients?

- a. $250
- b. $260
- c. $275
- d. $300
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Question 9.
Based on the graph in #8, which of the following could be a reasonable conclusion?

a. As clients increase, profit decreases.
b. As profit increases, clients decrease.
c. As clients decrease, profit stays the same.
d. As clients increase, profit increases.

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Question 10. Jane’s hair salon makes an average of $20 profit for every female client \((f)\) and $12 for every male client \((m)\). If her salon sees 20 clients in one day and makes $240 profit, which system of equations could be used to find out how many clients of each gender visited her salon?

a. \(m + f = 20\)
   \(m + f = 240\)
b. \(m + f = 20\)
   \(20m + 12f = 240\)
c. \(m + f = 20\)
   \(12m + 20f = 240\)
d. \(m + f = 240\)
   \(12m + 20f = 20\)
Answer Key

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