

# Hospitality and Tourism

## Travel and Tourism Management

### Multiple Choice Math Assessment Problems

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All math problems address TEKS 130.225. Travel and Tourism Management.

(1) The student gains academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within the travel and tourism industry. The student is expected to:

(D) calculate correctly using numerical concepts such as percentages and estimations in practical situations.

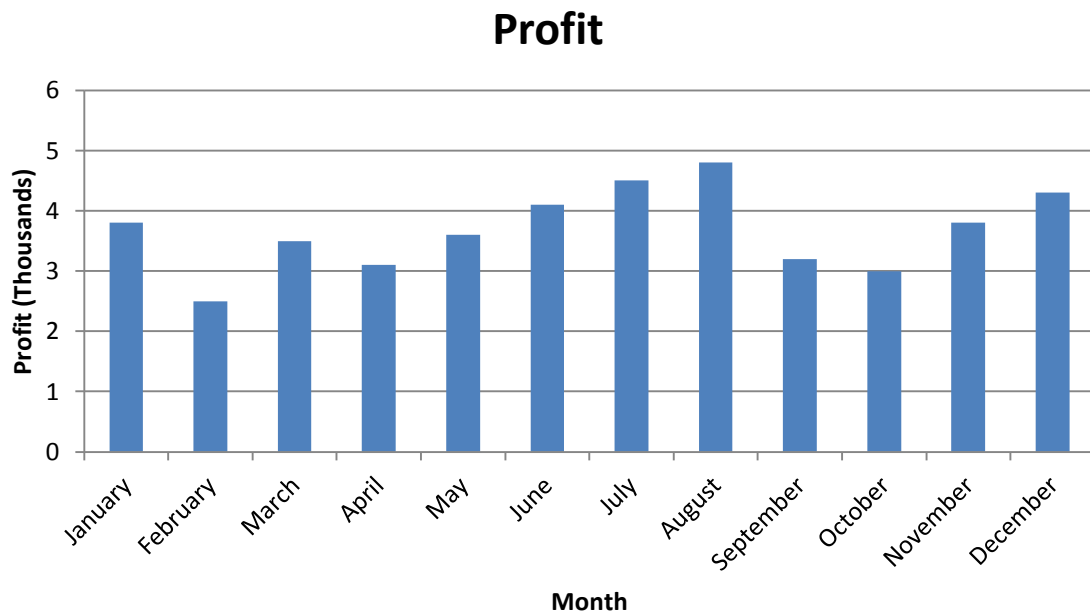
**Question 1.** Judith works for a travel agency where the general rule is a group rate of 15% off can be applied to any regular priced travel package where more than 10 people are booking together. Which function below could be used to find  $D$  the discounted price on a \$400 vacation for  $n$  number of people, where  $n \geq 10$ ?

- a.  $D = 400n$
- b.  $D = 400(15)n$
- c.  $D = 400(.15)n$
- d.  $D = 400(.15)(n - 10)$

(3) The student solves problems using critical-thinking skills independently and in teams. The student is expected to:

(C) use principles of budgeting and forecasting to maximize profit and growth for travel and tourism establishments.

**Question 2.** Analyze the chart below.



The chart above is the profit by month reported by the tourism bureau of Marfa, TX. According to the chart, which of the following statements could **NOT** be supported by the data?

- August is the most profitable month.
- June, July, August are the most profitable three consecutive months.
- The winter is the cheapest time to travel to Marfa.
- February generates the least amount of profit.

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**Question 3.** A local high school is planning their senior trip to Thrills 'n' Spills Theme Park. The general admission price is \$59.99 per person. If the theme park will give a group rate of 20%, how much will it cost for the entire senior class of 352 students to go to Thrill 'n' Spills?

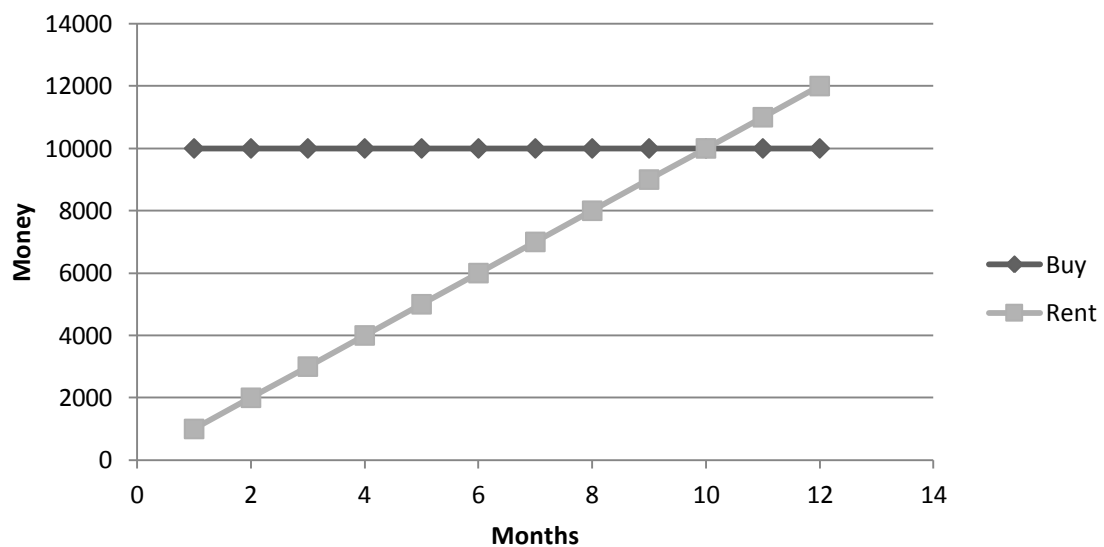
- a. \$4,223.30
- b. \$10,343.70
- c. \$16,893.18
- d. \$21,116.48

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**Question 4.** Analyze the chart below that compares the total cost of buying space for a snorkel rental store vs. renting space on the beach for a snorkel rental store.

### Money Spent on Snorkel Store



Which one of the following is the most reasonable conclusion from the chart?

- It costs more to rent than it does to buy.
- It costs more to buy than it does to rent.
- It costs \$10,000 a month to buy.
- It costs \$1,000 a month to rent.

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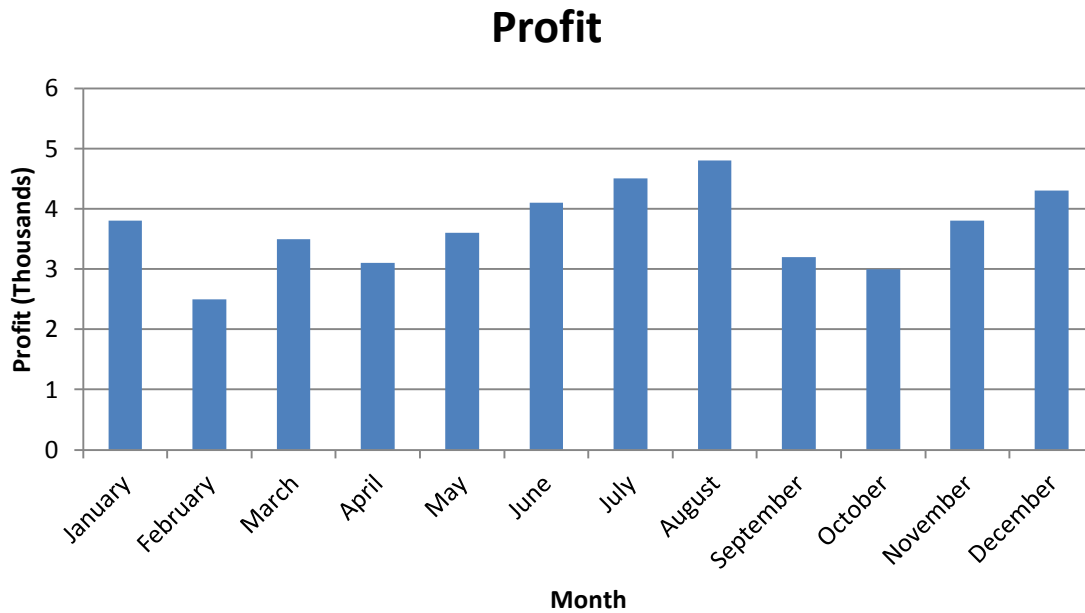
**Question 5.** According to the chart in #4, when will buying space be a better deal than renting?

- a. After one month
- b. After ten months
- c. After twelve months
- d. Never

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**Question 6.** Analyze the river boat tours profit by month chart below.



According to chart which month could you expect to see the most tours happening?

- a. January
- b. February
- c. March
- d. April

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**Question 7.** Waldo runs a snow cone stand at a popular summer hangout. He wants to buy a new snow cone maker that will use 30% less ice to make the same amount of snow. If Waldo could make 300 snow cones with a 25 pound block of ice before, how many snow cones can he expect to make with the new machine?

- a. 90
- b. 210
- c. 225
- d. 390

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**Question 8.** Waldo runs a snow cone stand at a popular summer hangout. He wants to buy a new snow cone maker that will use 30% less ice to make the same amount of snow. If Waldo could make 300 snow cones with a 25 pound block of ice before, how much ice would be needed to make the same amount of snow cones with the new machine?

- a. 7.5 pounds
- b. 17.5 pounds
- c. 25 pounds
- d. 32.5 pounds

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**Question 9.** Travelgenius.com advertises having the lowest prices for travel on the web. The business buys the airline tickets direct from the airlines that are 20% less than the advertised price. It then makes 8% profit on every ticket sold. Which equation could be used to find the final sell price  $P$  travelgenius.com advertises on their website given the airline's rate  $r$ ?

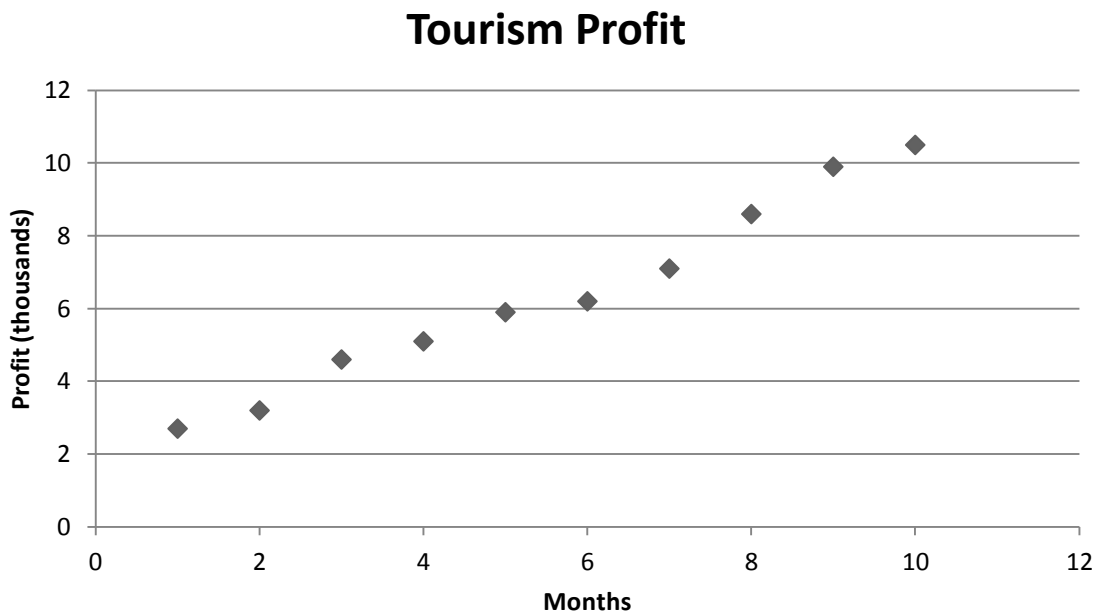
- a.  $P = 1.12r$
- b.  $P = 8r + 20$
- c.  $P = .20r + .8$
- d.  $P = .8r + .20$



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**Question 10.** Analyze the chart below.



If the trend in profit continues, what would be the most reasonable estimation for the profit in month 20?

- a. 10,000
- b. 12,000
- c. 15,000
- d. 20,000

# Answer Key

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