Lesson 14 Practice Problems

1. A bank charges a service fee of $7.50 per month for a checking account.

   A bank account has $85.00. If no money is deposited or withdrawn except the service charge, how many months until the account balance is negative?

2. The table shows transactions in a checking account.

January	February	March	April
-38.50	250.00	-14.00	-86.80
126.30	-135.20	99.90	-570.00
429.40	35.50	-82.70	100.00
-265.00	-62.30	-1.50	-280.10

   a. Find the total of the transactions for each month.

   b. Find the mean total for the four months.

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3. A large aquarium of water is being filled with a hose. Due to a problem, the sensor does not start working until some time into the filling process. The sensor starts its recording at the time zero minutes. The sensor initially detects the tank has 225 liters of water in it.

   a. The hose fills the aquarium at a constant rate of 15 liters per minute. What will the sensor read at the time 5 minutes?

   b. Later, someone wants to use the data to find the amount of water at times before the sensor started. What should the sensor have read at the time -7 minutes?

4. A furniture store pays a wholesale price for a mattress. Then, the store marks up the retail price to 150% of the wholesale price. Later, they put the mattress on sale for 50% off of the retail price. A customer just bought the mattress on sale and paid $1,200.

   a. What was the retail price of the mattress, before the discount?

   b. What was the wholesale price, before the markup?

(From Unit 4, Lesson 11.)

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5. a. A restaurant bill is $21. You leave a 15% tip. How much do you pay including the tip?

b. Which of the following represents the amount a customer pays including the tip of 15% if the bill was b dollars? Select **all** that apply.

- $15b$
- $b + 0.15b$
- $1.15b$
- $1.015b$
- $b + \frac{15}{100}b$
- $b + 0.15$
- $0.15b$

(From Unit 4, Lesson 10.)

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