Unit 2 - Creating and Solve Equations in a Context

Name: _____   **Date:** _____

1. On a class trip, Elise brings $30 to the Sea Life Center. She spends $18 on gifts and purchases three corn dogs, and then she has spent all of her money. Which equation can you use to find the cost of a corn dog?

   A. $3x = 30 + 18$ B. $3x + 18 = 30$

   C. $3 + 18x = 30$ D. $30x = 3 + 18$

2. Ms. Cook's class bought 2 bags of concrete and some bricks to build a border for their class garden. The bricks cost $51. The total cost of the bricks and the concrete was $57. Which equations can be used to find the cost, b, of 1 bag of concrete?

   A. $b + 51 = 57$ B. $2 + 51b = 57$

   C. $2b + 51 = 57$ D. $2(51) + b = 57$

3. At the school carnival, Luke bought a hot dog for $2. He also bought g game tickets for $0.25 each. Luke spent a total of $10.

   Which of the following equations can be used to find the number of game tickets that Luke bought?

   A. $2g + 0.25 = 10$ B. $2g - 0.25 = 10$

   C. $0.25g + 2 = 10$ D. $0.25g - 2 = 10$

4. Bonita spent $8.94 on groceries. She bought a gallon of milk for $4.29 and 3 pounds of sliced turkey. How much does 1 pound of sliced turkey cost?

   A. $1.43   B. $1.55   C. $2.08   D. $2.98

5. Trish's resting heart rate is 50 beats per minute. For every minute she exercises, her heart rate increases 5 beats per minute. How long will it take her to reach a heart rate of 120 beats per minute?

   A. 5 minutes   B. 14 minutes

   C. 34 minutes   D. 70 minutes

6. Manuel has $50 in his bank account. Starting this week, he will deposit $30 into the account each week. If Manuel does *not* take any money out of his account, how many weeks will it take for the total amount of money in his account to reach $320?

   A. 4 weeks   B. 7 weeks

   C. 9 weeks   D. 16 weeks

7. Which sentence represents this equation?

   $$4x - 2 = 12$$

   A. Two less than four times a number is 12.

   B. Four times two less than a number is 12.

   C. Four times a number is two less than 12.

   D. Four times a number less than two is 12.

8. Study the table below. The table shows the information about 4 accounts that were opened at the same time.

SAVINGS ACCOUNTS INFORMATION

Name	Amount When Opened	Monthly Deposit
Linda	$25	$15
Michael	$40	$10
Nelson	$30	$14
Olivia	$20	$20

Who will be the first to have $100 in his or her savings account?

A. Linda

B. Michael

C. Nelson

D. Olivia

9. A checking account is set up with an initial balance of $4800, and $400 is removed from the account each month for rent (no other transactions occur on the account).

   a) Write an equation whose solution is the number of months, m, it takes for the account balance to reach $2000.

   b) Solve the equation you wrote in part a and state how many months it will take for the account to reach $2000. Be sure to show or explain how you solved the equation.

10. Seung is saving money to buy a television. He starts saving by putting $40 in an envelope. Each week Seung adds the same amount of money to the envelope. He does not take any money out of the envelope. The table below shows the amount of money in the envelope at the end of each week for Seung's first four weeks of saving.

Amount of Money at End of Week

Week	Amount of Money
1	$50
2	$60
3	$70
4	$80

   a) What is the amount of money, in dollars, in the envelope at the end of week 8? Show or explain how you got your answer.

   b) Write an algebraic expression that could be used to find the amount of money in the envelope at the end of n weeks.

   c) What is the amount of money, in dollars, in the envelope at the end of week 28? Show or explain how you got your answer.

   d) Determine the number of weeks it will take for the amount of money in the envelope to be exactly $500. Show or explain how you got your answer.

1.
Answer: B
Points: 1

2.
Answer: C
Points: 1

3.
Answer: C
Objective: MA 8.P.7
Points: 1

4.
Answer: B
Points: 1

5.
Answer: B
Points: 1

6.
Answer: C
Points: 1

7.
Answer: A
Points: 1

8.
Answer:
Points: 1

9.
Answer: $4800 - 400m = 2000$; 7 months
Objective: CC A.CED.1
Points: 1

10.
Answer:
Objective: MA 10.P.1
Points: 1