

**HW #4 Linear Stories Test Review**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Renee wants to order fishing poles for her tour group. The table below shows the total cost ( $c$ ) of ordering  $n$  poles.

**Fishing Poles**

Number ( $n$ )	Total Cost ( $c$ )
3	\$120
4	\$140
5	\$160
6	\$180
7	\$200

Which equation shows the relationship between the number of poles ordered,  $n$ , and the total cost,  $c$ ?

- A.  $c = 3n + 120$       B.  $c = 4n + 180$   
 C.  $c = 20n + 60$       D.  $c = 40n$

2. The weight of a newborn tiger is shown in the table below.

**Weight of Tiger**

Age (weeks)	Weight (pounds)
0	3
1	5
2	7
3	9
4	11

Which equation *best* represents the relationship between the age ( $a$ ) of the tiger and its weight ( $w$ )?

- A.  $w = 2a + 3$       B.  $w = 3a + 2$   
 C.  $a = 2w + 3$       D.  $a = 3w + 2$

3. The table below shows the prices a company charges for basketball trophies.

**Basketball Trophy Prices**

Number of Letters ( $x$ )	Price ( $y$ )
0	\$3.90
1	\$4.00
2	\$4.10
3	\$4.20
4	\$4.30

Each price depends on the number of letters ( $x$ ) to be engraved. Which equation models the price ( $y$ ) of a trophy with  $x$  letters?

- A.  $y = 3.90 + x$       B.  $y = 3.90x$   
 C.  $y = 3.90 + 0.10x$       D.  $y = 3.90 + 10x$

4. The following table shows the noise level at various distances from an airport when an airplane takes off.

**Noise Level of an  
Airplane at Take-off**

Miles ( $M$ ) from Airport	Noise Level ( $D$ ) (in Decibels)
1	75
2	64
3	53
4	42

Which equation shows the relationship between  $D$  and  $M$  in this table?

- A.  $D = 86 - 11M$       B.  $D = 11M - 86$   
 C.  $D = 76 - M$       D.  $D = M - 76$

5. A pump is draining 12,000 gallons of water out of a swimming pool. The pump drains at a constant rate of 360 gallons per hour.

Which of the following equations expresses the relationship between  $x$ , the number of hours the pump has been draining the pool, and  $y$ , the number of gallons of water left in the pool?

- A.  $y = 360x - 12,000$       B.  $y = 360x + 12,000$   
 C.  $y = 12,000 - 360x$       D.  $y = 12,000 + 360x$

6. A video store charges a one-time membership fee of \$12.00 plus \$1.50 per video rental. Which of these equations represents the amount ( $A$ ) a customer spends, in dollars, for  $v$  videos?

- A.  $A = 1.5v - 12$       B.  $A = 1.5v + 12$   
 C.  $A = 12v + 1.50$       D.  $A = 12v - 1.50$

7. Lydia has \$200 in her bank account at the beginning of the year. Each month, she deposits \$40 into her account. She does not withdraw any money from her account, and the account pays no interest. Which of these equations could Lydia use to find the total amount ( $T$ ) in her bank account at the end of  $m$  months?

- A.  $T = 40m$       B.  $T = 240m$   
 C.  $T = 200m + 40$       D.  $T = 40m + 200$

8. A repair company charges an initial fee of \$50, plus an additional \$35 per hour of work. Which equation can be used to determine  $c$ , the amount the company charges for  $h$  hours of work?

- A.  $c = 35h + 50$       B.  $c = 50h + 35$   
 C.  $c = 85h$

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1.  
Answer: C  
Points: 1
2.  
Answer: A  
Points: 1
3.  
Answer: C  
Points: 1
4.  
Answer: A  
Points: 1
5.  
Answer: C  
Objective: MA 10.P.7  
Points: 1
6.  
Answer: B  
Objective: 1.2.1  
Points: 1
7.  
Answer: D  
Objective: 1.2.1  
Points: 1
8.  
Answer: A  
Points: 1