Name: _____ **Homework #5** Score = _____/20

Directions: Each day Thursday through Wednesday (not including weekends), there are 1-4 questions to complete for homework. You may complete the work in the space provided. If you choose to work on a separate sheet of paper, record your answer in the appropriate box, and staple your separate sheet of paper to this one. ***To earn full credit, you must show some work when solving equations.***

**IMPORTANT: Go to this link and insert your answers

Thursday

Which inequality is true when $x = 4$?

A $-25x > 100$

B $-25x \geq 100$

C $25x < 100$

D $25x \leq 100$

The tables show the relationships between x and y for two data sets.

Data Set I

x	y
1	5.5
2	11.0
3	16.5
4	22.0
5	27.5

Data Set II

x	y
1	5
2	10
3	15
4	20
5	25

Which statements describe the relationships between x and y Data Set I and Data Set II?

A Both data sets show additive relationships.
In Data Set I, y is 5.5 more than x, and in Data Set II, y is 5 more than x.

B Data Set I shows a multiplicative relationship in which y is 5.5 times x.
Data Set II shows an additive relationship in which y is 20 more than x.

C Both data sets show multiplicative relationships.
In Data Set I, y is 5.5 times x, and in Data Set II, y is 5 times x.

D Data Set I shows an additive relationship in which y is 4.5 more than x.
Data Set II shows a multiplicative relationship in which y is 5 times x.

Which statement describes the relationship between x and y in these two equations?

$$y = 2x$$
$$y = x + 2$$

F In y=2x the value of y is 2 more than the value of x, and in y=x+2 the value of y is twice the value of x.

G In y=2x and in y=x+2, the value of y is 2 more than the value of x.

H In y=2x the value of y is twice the value of x, and in y=x+2 the value of y is 2 more than the value of x.

Friday

Mauricio saves the same amount from his paycheck each week. The table shows the total amount of money saved based on the number of weeks.

Mauricio's Savings

Number of Weeks	1	2	3	4	5
Total Saved (dollars)	25	50	75	100	125

Which list shows the dependent quantities from the table?

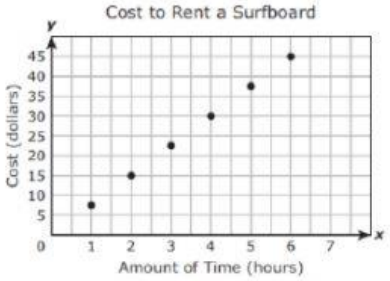
A 26, 52, 78, 104, 130

B 25, 50, 75, 100, 125

C 1, 2, 3, 4, 5

D None of these

The graph shows the cost to rent a surfboard for different amounts of time.



Which list best represents the independent values of the graphed points?

F 1, 7.50, 2, 15, 3, 22.50, 4, 30, 5, 37.50, 6, 45

G 5, 10, 15, 20, 25, 30, 35, 40, 45

H 7.50, 15, 22.50, 30, 37.50, 45

J 1, 2, 3, 4, 5, 6

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Monday

The graph shows the amount of money earned by an employee based on the time he spent working.



Which list shows the dependent quantities in the graph?

F 10, 20, 30, 40, 50

G 1, 2, 3, 4, 5

H 11, 22, 33, 44, 55

J 101, 202, 303, 404, 505

Shaundra made this table in order to show the results of a science experiment.

Plant Growth

Plant	Amount of Fertilizer Added to Soil (milliliters)	Change in Height of Plant (centimeters)
A	4	0.5
B	8	1.0
C	1	0.15
D	2	0.25

Which statements about the quantities in Shaundra's experiment is true?

A The amount of fertilizer added and the change in the height of the plants are both independent quantities.

B The amount of fertilizer added and the change in the height of the plants are both dependent quantities.

C The amount of fertilizer added is a dependent quantity, and the change in the height of the plant is an independent quantity.

D The amount of fertilizer added is an independent quantity, and the change in the height of the plant is a dependent quantity.

The table shows the relationship between b, the number of bread, and c, the total number of calories in the bread.

Calories in Bread

Number of Slices, b	Total Calories, c
2	140
4	280
6	420
8	560

Which equation represents the relationship between b and c?

F $c = 70b$

G $c = b + 70$

H $c = 140b$

J $c = b + 140$

Tuesday

The table shows the relationship between r and s, where s is the independent variable.

s	1	2	3	4	5	6
r	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{5}{6}$	1

Which equation represents the relationship between r and s?

F $s = \frac{1}{6}r$

G $r = s - \frac{5}{6}$

H $s = r - \frac{5}{6}$

J $r = \frac{1}{6}s$

Alice's Money

Money at the Beginning of the Day, d	Money After Riding the Bus to Work, w
$15.75	$14.50
$9.50	$8.25
$5.25	$4.00
$30.00	$28.75

Which equation represents the relationship in the table?

F $w = d + 1.25$

G $w = 14.50d + 1.25$

H $w = 15.75d - 1.25$

J $w = d - 1.25$

At a bookstore the total cost of 6 books is $45. Each book costs the same amount.
Which table shows this relationship?

A

Cost of Books

Number of Books Bought	1	2	3	4
Cost (dollars)	7.50	15.00	22.50	30.00

B

Cost of Books

Number of Books Bought	8.5	9.5	10.5	11.5
Cost (dollars)	1.00	2.00	3.00	4.00

C

Cost of Books

Number of Books Bought	7.5	15	22.5	30
Cost (dollars)	1.00	2.00	3.00	4.00

Wednesday

Which situation can be represented by the equation y=12x?

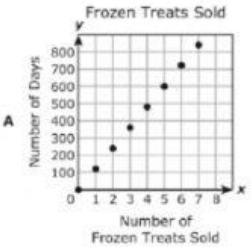
A Victoria went to school for x years. This is 12 times y, the number of years her brother went to school.

B Victoria spent x dollars to buy a gift for her brother. She gave the cashier y dollars and received $12 in change.

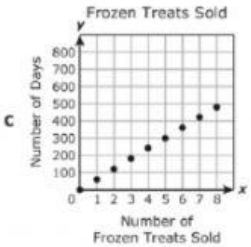
C Victoria has y dollars. This amount is 12 times x, the amount of money in dollars Victoria's brother has.

The owner of a food cart sells an average of 120 frozen treats per day during the summer.
Which graph best shows this relationship between the number of days and the number of frozen treats sold?

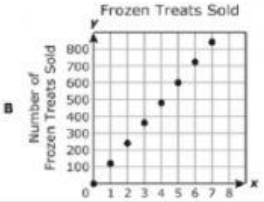
A



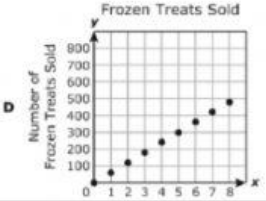
C



B



D



Which situation can be represented by the equation y=74x?

A A company uses a total of y gallons of water at a rate of 74 gallons per hour for x hours.

B A restaurant serves a total of y meals in one day, in which 74 meals are served during the first hour and x meals are served during the remaining hours.

C A company manufactures a total of 74 drinking glasses every hour, with x of the glasses made of clear glass and y of them made of blue glass.

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