

Assignment Record Sheet

Math Core B

Full Name: _____

Week: 2/10- 2/14

Unit Name: Variables and Patterns

Period: 2

Date Assigned	Focus Question??	Homework (IP=in packet)	Meets Expectation (15 points)	Approaching Expectations (5 points)	Below Expectation (0 points)
Monday Feb. 10	<i>What is the relationship between dependent and independent variables in the equation $y=mx$?</i>	WU: Algebra wksht (IP) CW: Prob. 3.2 D p. 71 HW: ACE #2 p.76	WU: CW: HW:		
Tuesday Feb. 11	<i>How do you find y from an equation like $y=3x+5$ when values of x are given?</i>	WU: 5 Minute Frenzy (IP) CW: Prob. 3.3 A-B (IP) Video Launch HW: ACE #9 (IP)	WU: CW: HW:		
Wed. Feb. 12	<i>How do you find y from an equation like $y=3x+5$ when values of x are given?</i>	WU: None CW: Math Review HW: None	WU: CW: HW:		
Thursday Feb. 13	<i>When an equation relating 2 variables involves two or more operations, how do you find the values of the dependent and independent variable?</i>	WU: Math Cross Numbers (IP) CW: Prob. 3.4 A-E p. 75 HW: ACE #41 (IP)	WU: CW: HW:		
Friday Feb. 14	<i>When an equation relating 2 variables involves two or more operations, how do you find the values of the dependent and independent variable?</i>	WU: Long Division (IP) CW: Introduction to DESMOS HW: None Turn in your packet	WU: CW: HW:		

Total Homework Score for the Week: _____/75

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Daily Materials Score _____/25

Algebra Action!

Value of The Expression

w/u
2/10/20
Per. 2

A variable represents the unknown number in the expression or equation.
For example, $4 \times t = 12$. The letter "t" represents the number which multiplies by 4 to equal 12.

An expression in math is a sentence containing numbers and the operations. Below are examples of expressions:

$2 + 3$

$17 - 16 + 2$

$\frac{2}{5}x$

6

$(3 \times 5) - (6 \times 2)$

$y - 20$

We can find the value of the expression $7 + y$ by placing the variable with the number.
For example: if $y = 5$

1. Put 5 in the place of y

$7 + y$

$7 + 5$

2. Calculate it

$7 + 5 = 12$

Find the value of the expressions below. Show your work.

$17 - h$

If $h = 4$

$4 + y + 7$

If $y = 8$

$(12 - b) + 5$

If $b = 3$

$(5 \times m) + 1$

If $m = 6$

$(4 \times p) \times 2$

If $p = 10$

$20 + (6 \times w)$

If $w = 3$

Multiplication Five Minute Frenzy (B)

Try to complete the chart in less than five minutes and score 98 out of 100 or better. Write the product of the column and row numbers in each space.

x	3	9	11	1	4	6	12	7	10	2
9										
1										
12										
8										
7										
10										
4										
3										
6										
11										

Labsheet 3.3A

Wild World Admission Prices

Liz and Theo want to visit Wild World with their friends. Theo checks if the park offers special prices for groups larger than 3 people. He finds this information on the park's Web site:



A. Study the rule.

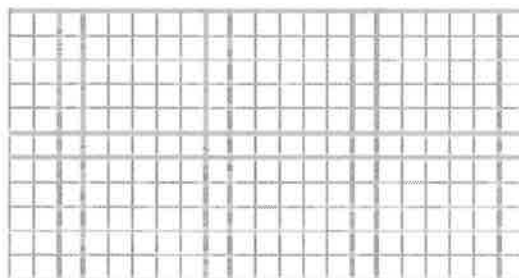
1. a. Complete the table to show the admission price for groups of size 4, 8, 12, 16, 20, 24, 28, 32, 36, and 40 people.

Wild World Admission Prices

Number in Group	4	8	12	16	20	24	28	32	36	40
Price										

Then sketch a graph of the data on the coordinate grid below.

Wild World Admission Prices



- b. Describe the pattern of change that shows up in the table and graph.

Labsheet 3.3B

Wild World Bonus Card

B. Admission to Wild World includes a bonus card with 100 points that can be spent on rides. Rides cost 6 points each.

1. Complete the table below to show a customer's bonus card balance after various numbers of rides.

Bonus Card Balance

Number of Rides	0	1	2	3	5	7	10	15
Points on Card	100							

2. Explain how you can calculate the number of points left after any number of rides.

3. Write an equation showing the relationship between points left on the bonus card and number of rides taken.

4. How does cost per ride appear in the equation?

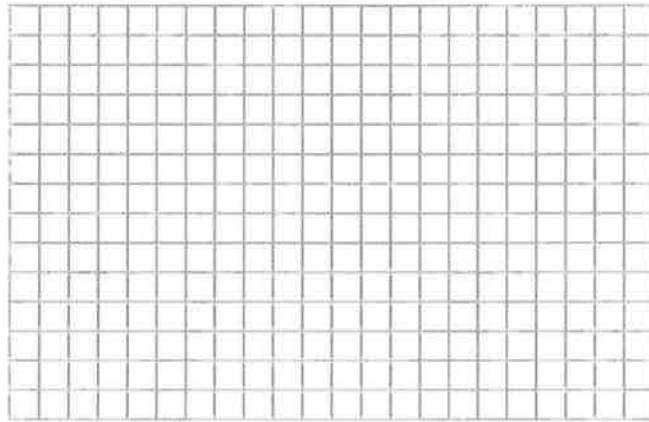
How does the number of bonus points at the start appear in the equation?

Labsheet 3.3B

Wild World Bonus Card

- 5. Sketch a graph of the relationship between points left and number of rides for up to 20 rides.

Bonus Card Balance



Describe the relationship between the variables.

Labsheet 3ACE **Exercise 9**

9. Sean plans to buy a new tablet for \$315. The store offers him an interest-free payment plan that allows him to pay in **monthly installments of \$25**.

Hint: Completing the table may help you answer the questions.

Sean's Loan Payments

Number of Payments (n)	1	2	3										
Amount Still Owed (a)	\$290												

- a. How much will Sean still owe after one payment?

Hint: Each monthly payment is \$25.
 The cost is \$315.
 $\$315 - \$25 = \$290$.
 Sean will still owe \$290 after 1 payment.

After two payments?

After three payments?

- b. Explain in words how the amount owed depends on the number of payments made. Use **n to stand for the number of payments** and **a for the amount still owed**. Then write an equation for calculating a for any value of n .

$a =$

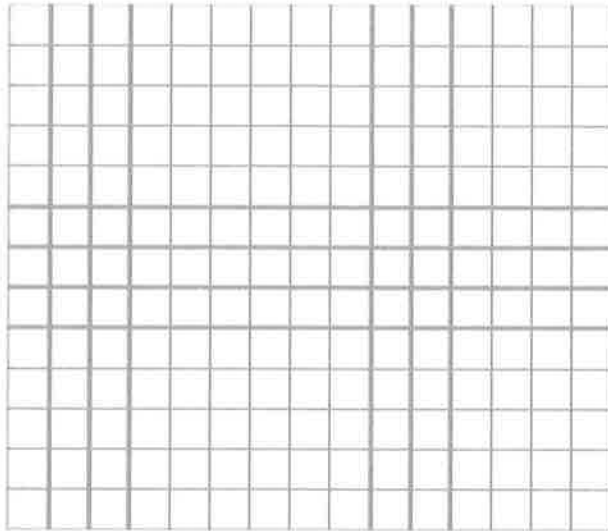
h/w

Labsheet 3ACE

Exercise 9

- c. Use your equation to make a graph showing the relationship between n and a .

Hint: You already completed a table.



- d. As n increases by 1, how does a change?

How is this change shown in the **table**?

How is it shown on the **graph**?

- e. How many **payments** will Sean have to make **in all**?

How is this shown in the **table**?

How is this shown on the **graph**?

Math Cross Numbers

W/u 2/13/20

Per. 2

Each of the digits 1 through 9 is used once and only once in each of these two puzzles. Can you figure out where they must be placed so that each of the equations (both horizontally and vertically) are true? Only positive numbers are involved.

(-		+	(= 8
-		+		÷	
(-		+)	= 7
x		-		-	
(÷)	+		= 7
= 5		= 10		= 0	

(+	(-		= 4
+		x		+	
(-)	+		= 8
-		-		-	
(x)	-		= 8
= 6		= 2		= 6	

Labsheet 3ACE

Exercise 41

41. Armen builds models from rods. When he builds bridges, he makes the sides using patterns of triangles like the ones below. The total number of rods depends on the number of rods along the bottom.



Rods along bottom = 3
Total number of rods = 11



Rods along bottom = 4
Total number of rods = 15

a. Complete the table below.

Rod Bridges

Rods Along Bottom	1	2	3	4	5	6	7	8	9	10
Total Number of Rods	3	7	11							

b. Write an equation relating the total number of rods t to the number of rods along the bottom b .

Explain how the formula you write relates to the way Armen puts the rods together.

h/w

Labsheet 3ACE

Exercise 41

- c. For the design below, complete the table and write an equation relating the total number of rods t to the number of rods along the bottom b .



Rod Bridges

Rods Along Bottom	1	2	3	4	5	6	7	8	9	10
Total Number of Rods	4	7	10							

Equation:

w/m
2/14/20

Per. 2

Division (A)

Find each quotient.

$4\overline{)236}$

$5\overline{)165}$

$7\overline{)518}$

$6\overline{)516}$

$8\overline{)448}$

$8\overline{)720}$

$8\overline{)304}$

$9\overline{)774}$

$3\overline{)162}$

$5\overline{)285}$

$4\overline{)244}$

$9\overline{)765}$

$8\overline{)480}$

$8\overline{)192}$

$2\overline{)76}$

$6\overline{)312}$

$8\overline{)544}$

$5\overline{)50}$

$7\overline{)427}$

$4\overline{)108}$