

Assignment Record Sheet

Math Core B

Full Name: _____

Week: 3/2 - 3/6

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 Mar. 2	<i>Is it possible to have two different, but equivalent, expressions for a given situation?</i>	WU: 5 Minute Frenzy (IP) CW: Prob. 4.1 A-B (IP) Video Launch HW: ACE #1 & 2 p.100	WU: CW: HW:		
Tuesday Mar. 3	<i>What does it mean to say that two algebraic expressions are equivalent?</i>	WU: Unknown Variable wksht (IP) CW: Prob. 4.2 A-B p. 92 HW: ACE #5 (IP)	WU: CW: HW:		
Wed. Mar. 4	<i>What does it mean to say that two algebraic expressions are equivalent?</i>	WU: None CW: Math Review HW: None	WU: CW: HW:		
Thursday Mar. 5	<i>How can expressions such as $3x + 7x$ or $3(x + 2)$ be written in equivalent form?</i>	WU: Introduction to Lesson 4.3 CW: Prob. 4.3 B (IP); C p. 95 HW: ACE #6 p. 104	WU: CW: HW:		
Friday Mar. 6	<i>What strategies can you use to solve equations in the forms $x + a = b$, $x - a = b$, and $x/a = b$ ($a \neq 0$)</i>	WU: Khan Academy : Finding the Unknown Variable CW: Prob. 4.4 A, C & D p. 97 HW: None Turn in your packet	WU: CW: HW:		

Total Homework Score for the Week: _____/75

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Daily Materials Score _____/25

Per. 2
3/2/20
W/U

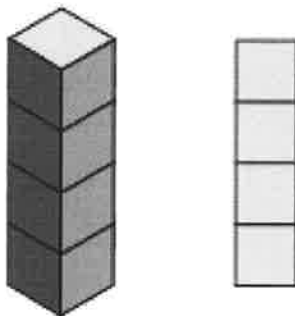
Multiplication Five Minute Frenzy (B)

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										

Problem 4.1

Equivalent Expressions I



A. 1. What numbers would go in the second row of this table?

Number of Squares	1	2	3	4	5	10	20
Number of Pieces	4						

2. Write an equation that shows how to find the number of steel pieces P needed to make a ladder of n squares.

B. 1. What numbers would go in the second row of a table that counts pieces needed to make a tower of n cubes?

Number of Cubes	1	2	3	4	5	10	20
Number of Pieces	12						

2. Write an equation that shows how to find the number of steel pieces in a tower of n cubes.

Solving Simple Equations (A)

Name: _____

Date: 3/3/20

Determine the value of each unknown.

1. $-2 - h = -9$

2. $o + -9 = -7$

3. $-5 - d = -1$

4. $-7 - e = -1$

5. $z + -1 = 0$

6. $7 - i = 5$

7. $r + -1 = 1$

8. $f + -9 = -18$

9. $5 - j = 3$

10. $-3 - l = -2$

11. $b + -7 = -9$

12. $-3 - n = 0$

13. $-12 - p = -8$

14. $-7 - k = 2$

15. $q + -7 = 1$

16. $a + -3 = 0$

17. $w + 9 = 16$

18. $v + 5 = 8$

19. $-4 - u = 4$

20. $-3 - m = -3$

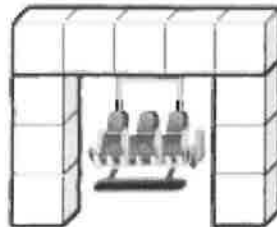
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Labsheet 4ACE Exercise 5

5. Mitch, Lewis, and Corky were discussing equations that they wrote for Exercise 4. They called the height T and the number of cubes c .

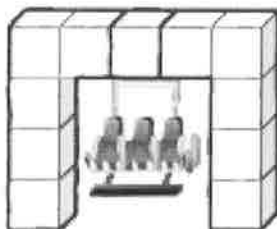
Mitch's thinking: The top of the swing frame has 5 cubes, and then there are $T - 1$ cubes underneath it.

The total number of cubes needed is $c = 5 + (T - 1) + (T - 1)$.

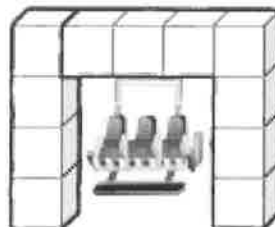


Lewis's thinking: When I see the drawing, I think of two upside-down L shapes with a middle piece.

My equation for the number of cubes is $c = 2(T + 1) + 1$.



Corky's thinking: On the left side I see a single tower, and the right side is a tower with three extra cubes. My equation is $c = T + (T + 3)$.



h/w

Labsheet 4ACE Exercise 5

a. Fill in the table for each of the equations.

Mitch

Number of Squares Tall T	2	4	6	8	10
$C = 5 + (T - 1) + (T - 1)$	7				

Lewis

Number of Squares Tall T	2	4	6	8	10
$C = 2(T + 1) + 1$					

Corky

Number of Squares Tall T	2	4	6	8	10
$C = T + (T + 3)$					

b. Which of the expressions are equivalent? Explain.

Hint: How can a table tell you equations are equivalent?

c. Write a new expression that is equivalent to the ones that are equivalent in part (b).

Hint: Without parentheses, Mitch's equation is $c = 5 + T - 1 + T - 1$. What equivalent equation can you write from that one?

Problem 4.3

Equivalent Expressions III

- B. Three of the business partners wrote equations that relate total tour cost C to the number of riders n :

Celia's equation: $C = 30n + 120n + 1000$

Theo's equation: $C = 150n + 1000$

Liz's equation: $C = 1150n$

1. a. Are any or all of these equations correct? If so, are they equivalent? Explain why.

- b. For the equations that are correct, explain what information each term and coefficient represents in the equation.

2. Compare the equations. Use Order of Operation guidelines to complete the table below of sample (n, C) values. What does the table suggest about which expressions for C are equivalent?

Operating Cost Related to Number of Customers

Number of Customers n	5	10	15	20	25
$C = 30n + 120n + 1000$					
$C = 150n + 1000$					
$C = 1150n$					

Problem 4.3

Equivalent Expressions III

3. What results would you expect if you were to graph the three equations?
Check your ideas by graphing.

4. Use the properties of operations such as the Distributive Property to show which expressions for cost are equivalent.