4.1g Classroom Activity: Using Unit Rates

Use the tables to identify the proportional constants (unit rates). Then use the unit rate to answer additional information. Models may be useful.

1.

Cups of flour	2	4	6	8	10
Number of Cookies	12	24	36	48	60

What is the unit rate of cups of flour per cookie?

How many cups of flour would be used for 20 cookies?

What is the unit rate of cookies per cups of flour?

How many cookies could be made with 5 cups of flour?

How many cookies could be made with 0 cups of flour?

2.

Inches of snowfall	1	2	3	4	5
Hours	$\frac{1}{2}$	1	$\frac{3}{2}$	2	$\frac{5}{2}$

What is the unit rate of inches per hour?

At this rate, how many inches of snow would have fallen in $2\frac{1}{3}$ hours?

What is the unit rate of hours per inch?

At this rate, if there is $7\frac{1}{2}$ inches of snow, how long has it been snowing?

3.

Dollars	3	4.50	6	7.50
Pesos	1	1.5	2	2.5

What is the unit rate of pesos per dollars?

At this rate, how many pesos could you get for 8 dollars?

What is the unit rate of dollars per pesos?

At this rate, how many dollars could you get for 18.60 pesos?

If you have 0 pesos, how many dollars is that worth?

4.

Homeruns	1	2	3	4	5
Swings	7	14	21	28	35

What is the unit rate of homeruns per swing?

At this rate, if the batter swings 30 times, estimate the number of homeruns he would have gotten.

What is the unit rate of swings per homerun?

At this rate, if the batter has gotten 9 home runs, how many times did he swing?

5.

Hours	0	1	2	3	4
Plumbing Cost	$45	$70	$95	$120	$145

What is different about this table?

Is there a unit rate? Justify your answer.

Do you think this data is continually proportional? Why or why not?