

Week 7: Warm-up questions

Name:

1. Albert is at the store to buy new pencils. Each pencil costs \$0.55. Albert has not decided how many pencils he will buy, but he will buy 0, 1, 2, 3, 4, 5, or 6 pencils.

Let the variable p represent the number of pencils that Albert decides to buy.

- (a) If Albert decides to buy 5 pencils, what is the value of p ?
- (b) Each row in the following table corresponds to the different number of pencils that Albert might buy. Complete the table.

p	The total amount of money Albert spends
0	
1	
2	
3	
4	
5	
6	

- (c) What is the domain of p ?
- (d) Write down an algebraic expression for the total amount of money that Albert has to spend if he decides to buy p pencils. Hint: think about how you completed the table from part (b).
- (e) It turns out that Al only has \$2 to spend on pencils. Write down an *open sentence* that describes Al's budget restriction. [See Chapter 3-6]
- (f) What is the solution set for that corresponds to Al's budget restriction from part (e) above? [See Chapter 3-6]

2. Bob is also at the store to buy new pencils and new notebooks. Each pencil costs \$0.55 and each notebook costs \$1.00. Bob will buy 0, 1, 2, or 3 pencils, and 2, 3, or 5 notebooks.

Let the variable p represent the number of pencils that Bob decides to buy.

Let the variable n represent the number of notebooks that Bob decides to buy.

- (a) If Bob decides to buy 1 pencil and 3 notebooks, what are the values represented by p and n ?

- (b) Complete the following table

p	n	The total amount of money Albert spends
0	2	
0	3	
0	5	
1	2	
1	3	
1	5	
2	2	
2	3	
2	5	
3	2	
3	3	
3	5	

- (c) What is the domain of p ?
- (d) What is the domain of n ?
- (e) Write down an algebraic expression for the total amount of money that Bob has to spend if he decides to buy p pencils and n notebooks.
- (f) It turns out that Bob only has \$4 to spend on pencils and notebooks. Write down an *open sentence* that describes Bob's budget restriction. [See Chapter 3-6]
- (g) What is the *solution set* for that corresponds to Bob's budget restriction from part (e) above? [See Chapter 3-6]