6.1 Extra Practice

1. a) Draw the next two figures in this series.
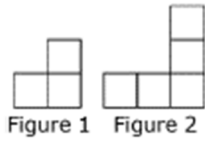
Figure 1   Figure 2

b) Create a table of values comparing the number of squares and the figure number.

c) Describe the pattern.

d) Write the equation that represents this pattern.

e) How many squares are in Figure 15?

f) Which figure number has 69 squares?

2. A number pattern starts at 1.5. Each number after that is four more than the number before.
a) Make a table of values for the first five terms.

b) Develop an equation that can be used to determine the value of each term in the pattern.

c) What is the value of the 95th term?

d) Which term has a value of 237.5?

3. What linear equation models the relationship between the values in each table?

a)

d	t
0	11
1	16
2	21
3	26
4	31

b)

x	y
1	-2
2	-0.5
3	1
4	2.5

4. On top of the $45 monthly fee, Sam's cell phone plan charges $0.15 for every text message he sends or receives.

a) Develop an equation to calculate the monthly bill.

b) Complete a table of values comparing the number of text messages and the monthly cost.

c) What would Sam's bill be if there were 20 text messages in a month?

d) If Sam budgets $80 a month for his cell phone, how many text messages can he send or receive each month? Explain.