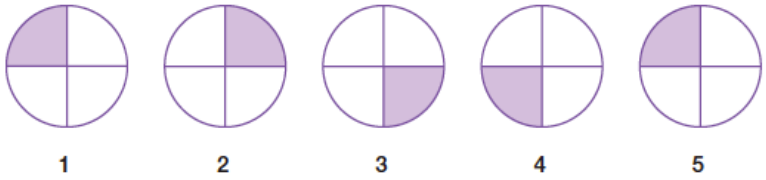
Algebra I
Lesson 4-8

- I can look for a pattern.
- I can write an equation given some of the solutions.

A very useful problem-solving strategy is look for a pattern.

Making a conclusion based on a pattern of examples is using inductive reasoning.

Study this pattern:



Draw the next three figures in the pattern.

Draw the 27th circle in the pattern.

In addition to arithmetic sequences, other sequences can follow a pattern.

Find the next three terms in the sequence 3, 6, 12, 24, ...

3 6 12 24 48, 96, 192

+3 +6 +12

The table below shows the average amount of gas a certain car uses depending on how many miles is driven.

g
m

Gallons of gasoline	1	2	3	4	5
Miles driven	28	56	84	112	140

+1 +1 +1 +1

+28 +28 +28 +28

Graph the data.

Write an equation to describe this relationship.

g=1, m=28 1(28)

g=2, m=56 2(28)

g=3, m=84 3(28)

$f(g) = 28g$

Write an equation in function notation for the relation that is graphed.

x	y
1	5
2	7
3	9
4	11
5	13

+2 +2 +2 +2

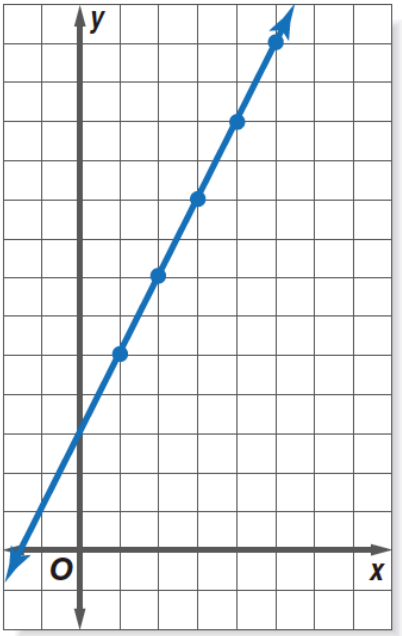
$2x \Rightarrow 2+3$

$2x \Rightarrow 4+3$

$2x \Rightarrow 6+3$

$2x \Rightarrow 8+3$

$f(x) = 2x+3$



Assignment:

Pgs. 244-245 #12-26 even;
27-28; 37-42 all