

Name: \_\_\_\_\_

### EE.9: Using Equations to Describe Patterns in Input/Output Tables Homework

Write an algebraic equation that explains the output pattern. Identify the independent variable and dependent variable in each equation.

1.

n	p
10	7
12	9
15	12

Equation: \_\_\_\_\_

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

2.

a	b
1	7
2	14
3	21

Equation: \_\_\_\_\_

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

3.

c	d
42	7
54	9
72	12

Equation: \_\_\_\_\_

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

4.

k	l
5	9
7	13
9	17

Equation: \_\_\_\_\_

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

Write an equation for each problem. Identify the independent variable and dependent variable in each equation.

- 5) Admission to the zoo costs \$3 per person. A family has a coupon for a discount of \$5. There are  $p$  people in the family. Complete the input/output table and write an equation that describes the pattern in the input/output table.

Number of people in family, $p$	Cost, $c$
4	
5	
8	

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

Equation: \_\_\_\_\_

6. A store that personalizes shirts charges \$20 for a shirt plus \$0.75 for each letter. Complete the input/output table and write an equation that describes the pattern in the input/output table.

Number of letter(s) on a shirt, $l$	Cost, $c$
1	
4	
7	

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

Equation: \_\_\_\_\_