Finite Differences – Day 1   Name _____
Assignment   Date _____Period _____

2nd Dot Pattern

| • | • • | • • • |
| • | • • | • • • |

First Step   Second Step   Third Step

step	# of dots

1.   What are the independent and dependent variables?

2.   Write an expression that can be used to determine the number of dots in the nth step?

3.   How many dots will there be in the ninth figure of the pattern?

4.   How many dots will there be in the eleventh figure of the pattern?

5.   Which figure would have 36 dots?
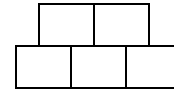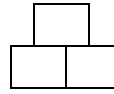
6.   What is an appropriate domain?

7.   What is an appropriate range?

Finite Differences – Day 1   Name _____
Assignment   Date _____Period _____

2nd Square Pattern

First Step   Second Step   Third Step

step	# of squares

8.   What are the independent and dependent variables?

9.   Write an expression that can be used to determine the number of dots in the nth step?

10.   How many dots will there be in the eighth figure of the pattern?

11.   How many dots will there be in the twelfth figure of the pattern?
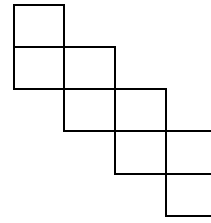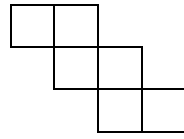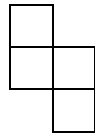
12.   Which figure would have 41 dots?

13.   What is an appropriate domain?

14.   What is an appropriate range?

Finite Differences – Day 1   Name _____
Assignment   Date _____Period _____

3rd Square Pattern

First Step   Second Step   Third Step

step	# of squares

15.   What are the independent and dependent variables?

16.   Write an expression that can be used to determine the
       number of dots in the *n*th step?

17.   How many dots will there be in the ninth figure of the
       pattern?

18.   How many dots will there be in the twelfth figure of the pattern?

19.   Which figure would have 50 dots?

20.   What is an appropriate domain?

21.   What is an appropriate range?