

Dot Patterns

1. Answer the questions about this series of pictures.

Picture 1: Here is an array of dots.



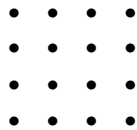
How many dots are there?

Picture 2: Now consider this array of dots.



How many *more* dots do you need to make this pattern?

Picture 3: Now consider this array of dots.



How many *more* dots are there in this array than in Picture 2?

Picture 4: What would the next array look like?

How many *more* dots are there in this array than in Picture 3?

Here is a table to keep track of the number of dots.

Picture number	Number of dots added to previous picture	Total number of dots in the picture
1		
2		
3		
4		
100		
101		

- Continuing the pattern, how many dots would need to be added to Picture 100 to make Picture 101? Tell how you got your answer.
- Can you describe the pattern of the number of dots as a function of the Picture number? Tell how you got your answer.
- Can you tell how many dots there would be in Picture 100? Tell how you got your answer.