

Homework Assignment

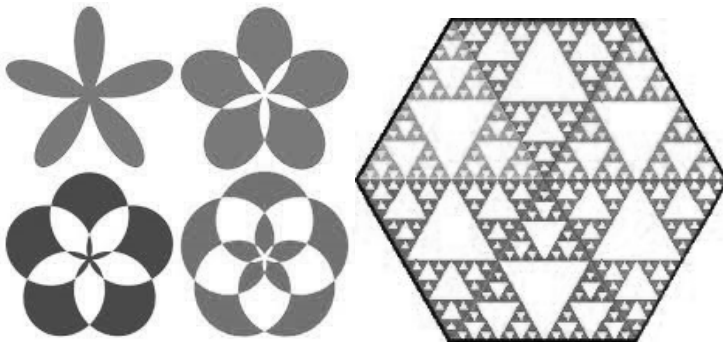
1) Look at the patterns below. Can you find the next two items in each list and state the rule for finding them?

a. 1, 3, 5, 7, ...

b. 1, 2, 4, 7, 11, ...

c. 2, -2, 2, -2, 2, ...

d. 3, 6, 12, 24, 48, ...



2) Take a few minutes to explore these two patterns. Then, in your own words, explain how each pattern is generated.

3) How many times can you repeat the processes used to create the patterns above?

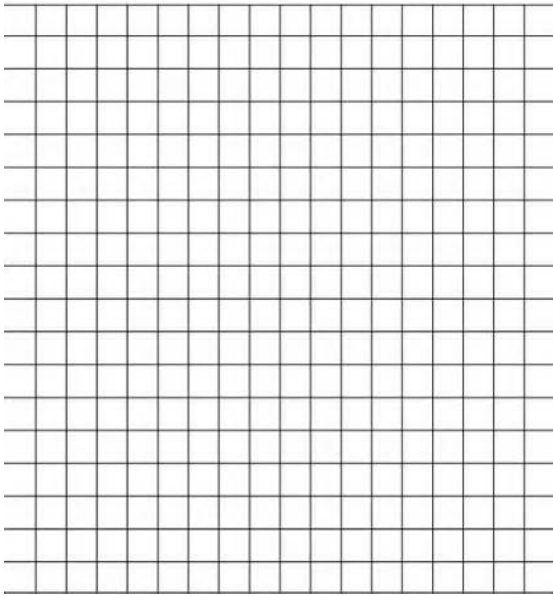
4) Explain the difference between prime and composite numbers.

5) Can inductive reasoning be used to formally prove something? Why or why not?

6) In the picture below, find as many geometric shapes as you can. Make a list of all the geometric shapes that you find.



7) Graph and label the following points on the coordinate plane.



A (2, 3)

B (-2, 8)

C (0, -1)

D (6, 6)

E (-5, 7)

F (3, 0)

G (3, -7)

H (9, -9)