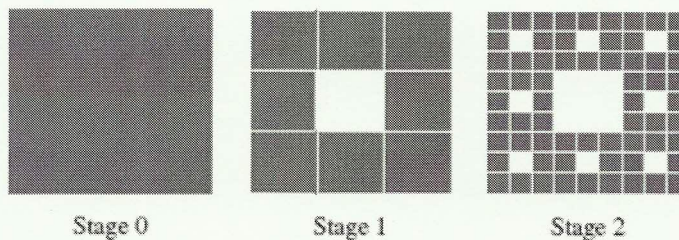


Student: Vilma Pena
Date: 9/1/15
Time: 5:41 AM

Instructor: Tech Support, Jonathan
Byrd, Jennifer Byrom, Nancy Hixson,
Kristy Hawkins, Christina Horton,
Rakia Law, Joey Fields
Course: MAT1301-14A-1A16-S2
Book: Pirnot: Mathematics All Around,
5e

Assignment: Unit V Homework

15. The following figures show stages 0, 1, and 2 of the construction of a figure called Sierpinski's carpet. Note that to go from one stage to the next, the center square is removed from each square in the figure. How many shaded squares will there be in the carpet in stage 9?



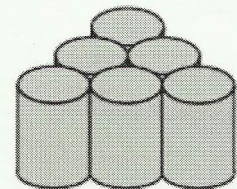
How many shaded squares will there be in the carpet in stage 9?

shaded squares

16. Two couples (Adam/Brenda and Carl/Darlene) have bought tickets for four adjacent seats to see a musical. In how many ways can the couples be seated if the women are to sit together?

There are ways.

17. In preparation for Thanksgiving Day, a store stacked cans of pumpkin pie filling in a triangular pyramid. Shown is a 3-by-3 row of cans. The top of the pyramid is a 1-by-1 row (only one can). The second row is a 2-by-2 row (three cans), the third row is a 3-by-3 row, and so on. If the pyramid has 12 rows, how many cans are there in the pyramid?



If the pyramid has 12 rows, how many cans are there in the pyramid?

cans

18. The board of an Internet startup company has fourteen members. If one person is to be in charge of human resources and another in charge of customer relations, in how many ways can these two positions be filled?

How many ways can the two positions be filled?