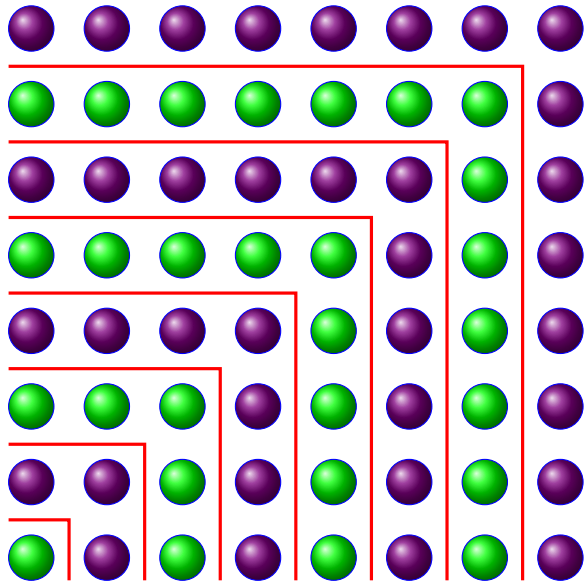


Assignment 1

Show all your work

Name: _____
 Number: _____
 Signature: _____
 Score: ____/10

Problem 1: Use a sequence of pictures to show that the sum of the first n consecutive odd numbers is the n th square number. Namely, 1 is the first square number, $1^2 = 1$; $1 + 3 = 4$ is the second square number, 2^2 , and so on.



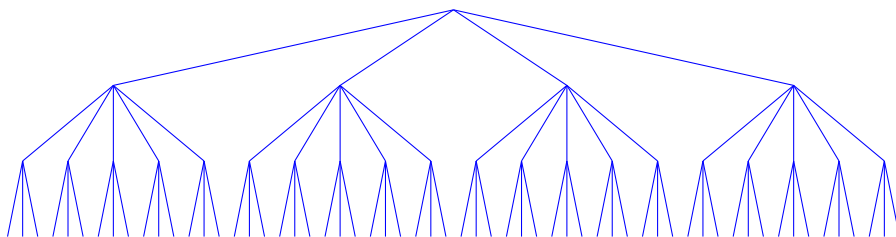
Score: /4

Problem 2: Anjali shared a long strip of fruit leather with her sisters, Simran and Gurpreet. The strip was 90 cm long. Anjali's strip was three times as long as Simran's; and Gurpreet's strip was twice as long as Simran's. Find the length of each person's strip of fruit leather.

Say the length of Simran's strip is x cm. Then Anjali's has length $3x$, and Gurpreet's has length $2x$. Therefore $x + 3x + 2x = 90$, so $6x = 90$, so $x = 15$.
 Hence Anjali's is 45 cm, Gurpreet's is 30 cm, and Simran's is 15 cm.

Score: /3

Problem 3: Draw a tree to count the number of different breakfast combo meals you can order from the cafeteria where you have 4 choices for drinks, 5 kinds of muffins, and 3 types of fruits if a breakfast combo meal consists of one drink, one muffin, and one fruit.



Score: /3