MAA Metro NY Section Problem and Puzzle of the Month

Sept 2024

Note: AI-generated solutions will not be accepted. Using AI to solve these problems defeats the purpose of the creative problem-solving process as it bypasses the critical thinking, exploration, and true learning.

Problem of the Month [1]

One morning, in Springfield, somewhere in the US, it started snowing at a heavy but constant rate. Homer Simpson had just started his own snow-plow business. His snowplow started out at 8:00 A.M. At 9:00 A.M. it had gone 2 miles. By 10:00 A.M. it had gone 3 miles. Assuming that the snowplow removes a constant volume of snow per hour, determine the time at which it started snowing.

Figure 1: Heavy snow in Springfield.

Puzzle of the Month

A princess is as old as the prince will be when the princess is twice as old as the prince was when the princess's age was half the sum of their present ages. What is the age of the prince and the princess? Provide all possible solutions.

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[1]Submit your solutions to Prof. Boyan Kostadinov at
   bkostadinov@citytech.cuny.edu.