Kwantlen Polytechnic University

Mathematics Problem of the Week 5

This week's winner is:

Suzanne Pearce

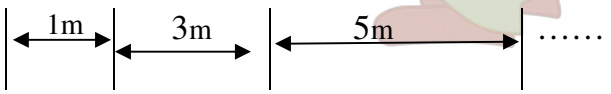
Contact Tariq Nuruddin at Surrey MAC or Judy Bicep (Richmond,3335) for your prize or email MathProblem@kpu.ca**.**

Also submitting correct solutions to problem 264 was:

James Guerry

Problem 264 solution:

The driver had to complete a round trip in order to load each of the remaining 19 baskets.



Distance for the second basket = 2(1) m
Distance for the third basket = 2(1+3) = 2(4) m
Distance for the fourth basket = 2(1+3+5) = 2(9) m
Distance for the twentieth basket ?

We will use the formula shown below

$$1^2 + 2^2 + 3^2 + \cdots + n^2 = \left(\frac{(n)(n+1)(2n+1)}{6}\right)$$

$$\text{Total distance covered} = 2(1^2 + 2^2 + 3^2 + \cdots + 19^2)$$

$$= 2\left(\frac{(19)(19+1)(2(19)+1)}{6}\right) = 4\,940 \text{ m} = 4.94 \text{ km}$$