Mathematics Problem of the Week (237)

This week's winner is:
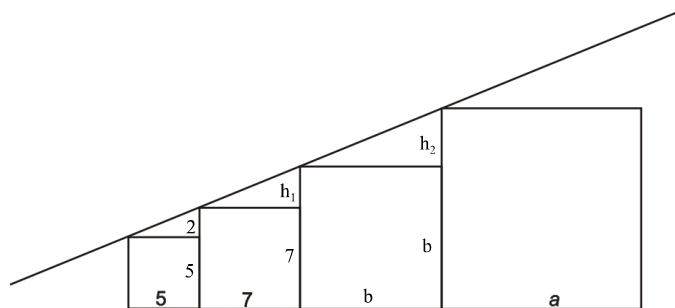# Burhan Akram

Contact Lin Hammill (Surrey Fir 348) or Judy Bicep (Richmond,3335) for your prize or email MathProblem@kpu.ca**.**

Also submitting correct solutions to problem 237 were:

Victor Blanchard, Maggie (Ming Kit) Lam, Matt Potma, Alex Au Ieong, David Luna, Jan Verster, and Suzanne Pearce

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Problem 237 solution:

From the triangle above the first square, we see that the slope of the line is 2/5. Thus

$$\frac{h_1}{7} = \frac{2}{5} \quad \Rightarrow \quad h_1 = \frac{14}{5} \quad \Rightarrow \quad b = 7 + h_1 = 7 + \frac{14}{5} = \frac{49}{5}$$

$$\frac{h_2}{b} = \frac{2}{5} \quad \Rightarrow \quad h_2 = \frac{2}{2} \cdot \frac{49}{5} = \frac{98}{25}$$

$$a = b + h_2 = \frac{49}{5} + \frac{98}{25} = \frac{343}{25} = 13.72$$