Mathematics Problem of the Week (246)

This week's winner is:

Tom Ouellette

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 246 were:

Anthony Roberts, Ming Kit Lam, Matthew Potma, David Luna, and Suzanne Pearce

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Problem 246 solution:

Let D be the distance (in km) to the store.
Then the time it took to get to the store is D/50 hours and the time it took to return is D/60 hours.

Her average speed is given by $\dfrac{\text{distance travelled}}{\text{time taken}}$.

Thus :
$$\frac{2D}{\dfrac{D}{50}+\dfrac{D}{60}} = \frac{2}{\dfrac{1}{50}+\dfrac{1}{60}} = \frac{2}{\dfrac{11}{300}} = \frac{600}{11} = 54.\overline{54}.$$

The average speed is approximately 55.55 kph.