

Mathematics Problem of the Week (256)

This week's winner is:

Steven Yang

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 256 were:

Andre Nobleza, Brady Schmidt, Anthony Roberts, Tierney Wisniewski, David Luna, and Suzanne Pearce

Problem 256 solution:

$11^3 = 1331$, $12^3 = 1728$ and $13^3 = 2197$. So his daughter must be 12 or under.

If his daughter is 11, then the square of his son's age must be about 600 in order to get a reasonable date of birth for his wife.

If his son were 25, the year of birth of his wife would be $1331 + 25^2 = 1331 + 625 = 1956$, which is not possible.

If his son were 24, the year of birth of his wife would be $1331 + 24^2 = 1331 + 576 = 1807$, which is also not possible.

Then his daughter must be 12, born in 1933. So we can assume his wife was born between about 1890 and 1915. Thus the square of his son's age should be between 160 and 190. $13^2 = 169$ and $14^2 = 196$.

If his son is 14 his wife was born in $1728 + 196 = 1924$. This is not possible as his daughter was born in 1933.

Then his son is 13 and his wife was born in $1728 + 169 = 1897$. His wife was 35 when his son was born and 36 when his daughter was born.

So his son is 13 and his daughter is 12 and his wife was born in 1897.

