FOUR 4'S

Since the last Parabola went to print, the following people have submitted answers: Aafke Van Dam (Picnic Point) has reached 76; Andrew McMaster and Peter Peasley (Temora) have reached 102; K. Burns (Campbell, ACT) has reached 112; V. Cerreto (South Sydney) has reached 146 (except 113); David Paterson (South Sydney) has reached 150 (except 113), (I understand the Maths Club at South Sydney have been working on the problem!); Greg Fulford (North Sydney Boys' High) has reached 156.

Greg gave two solutions for 136 and a solution to 113 using the percent sign:

$$113 = \frac{(\sqrt{4}/.4) + (\sqrt{4})\%}{4\%}.$$

A solution without using this is $(4!/.\sqrt{4}) + (\sqrt{4}/.4) = 24 \times 9/2 + 2 \times 10/4 = 108 + 5 = 113.$

Although we are now finished with this problem, any outstanding results will be announced if you let us know them.

Preview for 1972: Next year's problem is going to consist of finding out how many different ways each number can be written as a sum of squares, using as few squares as possible, e.g. 27 = 25 + 1 + 1 = 9 + 9 + 9 can be written as the sum of three squares in two different ways. (See the article "Pythagoras and all that" including its follow-up problems in this issue). Readers of Vol 7 will have a start on new readers, so get going!

R. James.

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