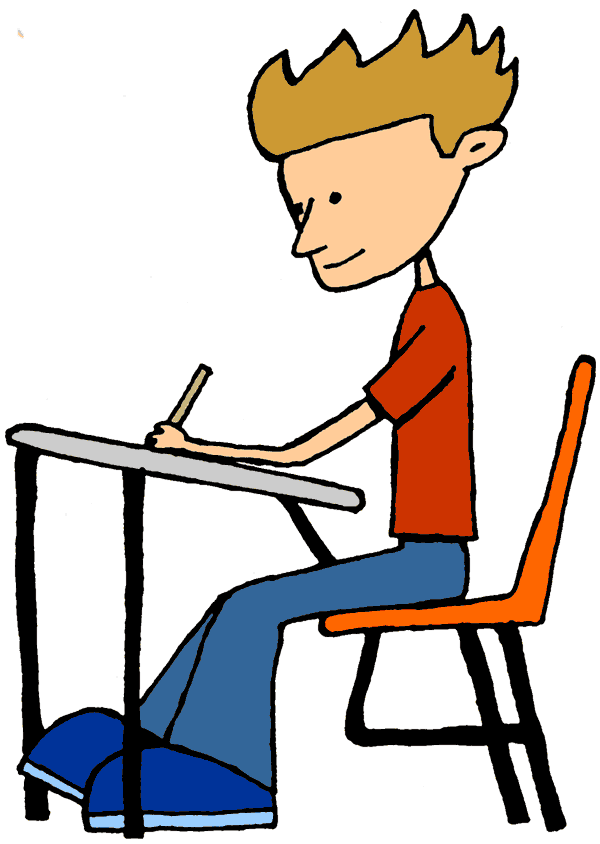
A class average mark in an exam is 70. The average of students who scored below 60 is 50. The average of students who scored 60 or more is 75. If the total number of students in this class is 20, how many students scored below 60?

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* 1. Let n the number of students who scored below 60 and N the number of students who scored 60 or more. Xi the grades below 60 and Yi the grades 60 or above.
  2. [sum(Xi) + sum(Yi)] / 20 = 70 : class average
  3. sum(Xi) / n = 50 : average for less that 60
  4. sum(Yi) / N = 75 : average for 60 or more
  5. 50n + 75N = 1400 : combine the above equations
  6. n + N = 20 : total number of students
  7. n = 4 and N = 16 : solve the above system

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