ANSWERS

A)   (_____ , _____)

B) _____

C)   (_____ , _____)

***** NO CALCULATORS ON THIS ROUND ****

A) The lines $y = 4x + 1$ and $y = mx + b$ are perpendicular to each other.

The second line passes through the point $\left(2, \dfrac{3}{4} \right)$. Find the ordered pair (m, b).

Note: Perpendicular lines have negative reciprocal slopes.

B) Comparing their ages next year, John's age will be twice Andy's age. Comparing their ages two years ago, John's age was three times Andy's age. Find the <u>sum</u> of their current ages.

C) A rectangle has length 5. If the length is increased by 10 and the width is increased by 10%, the perimeter is increased by 110%. Compute the ordered pair (A, B), where A denotes the perimeter of the original rectangle and B denotes the perimeter of the new (larger) rectangle.