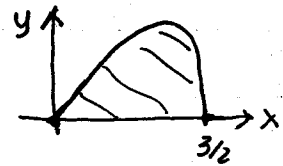Show <u>all</u> work on this sheet, including mental steps, in a clearly organized way that speaks for itself. Use proper mathematical notation/syntax. Label parts, boxed final short answers.

① a) Evaluate $\displaystyle\int_0^{3/2} x\sqrt{3-2x}\ dx$.

b) If you wanted to check your result in Maple, what single line maple command would do this? Write it down exactly as you would type it character by character. (not for credit, just feedback).

c) Maple's result is $\dfrac{3}{5}\sqrt{3}$. Does your answer agree? If so, show that they agree. If not, maybe you should recheck your work?