King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 162 Math 102 (13) Quiz#2 (5.3, 5.4, 5.5 & 6.1)
Family Name: S.r#

Q1. Evaluate $f(2)$, if $\int_{\sqrt{x}}^{1} t^2 f(t)\, dt = x \ln x$ where $f(x)$ is a continuous function.

Final Ans.

Q2. Evaluate $\int_0^1 (2x+1)\sqrt{1-x}\, dx$

Final Ans.

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Term 162 Math 102 (06) Quiz#2 (5.3, 5.4, 5.5 & 6.1)
Family Name: S.r#

Q1. Calculate $\int_{\sqrt{2}}^{\sqrt{3}} 2x\ f(x^2)\,dx$, if $f(x)$ is an even continuous function such that $\int_{-3}^{0} f(x)dx = 8$ and $\int_{-2}^{2} f(x)dx = 2$.

Final Ans.

Q2. Set up **(Do NOT evaluate)** an integral for the area of the region enclosed by $y^2 = -x$ and $x + y = -2$.
(Show all your work)

Final Ans.