$39a)\int_0^1 (1+x)^3\,dx =$

$39a)\int_0^1 (1+x)^3\,dx =$

~~$39b)\int_0^1 (1+2x)^3\,dx =$~~

$\boxed{A)\int_2^5 5^x\,dx =}$

$\int_2^5 e^x\,dx = e^x\Big]_2^5$

$e^x \cdot \ln e$

$\int_2^5 \boxed{5^x}\,dx = \frac{1}{\ln 5}\cdot 5^x\Big]_2^5$

$\frac{d}{dx} = 5^x \ln 5$

	Using the calculator to compute area
	A) $\int_0^8 \frac{1}{5+3\cos(x)}$ $= \int_0^8 \frac{1}{5+3\cos x} = \int_0^8 (5+3\cos x)^{-1} dx$ $\cancel{\frac{1}{0}(5+3\cos x)^0}$ $= 1.833$
$\sqrt{9-4x^2}=0$ $9-4x^2=0$ $9=4x^2$ $\sqrt{\frac{9}{4}}=\sqrt{x^2}$ $\pm\frac{3}{2}=x$	B) Find the Area of the region between the x - axis and the graph of $y=\sqrt{9-4x^2}$ $\int_{-\frac{3}{2}}^{\frac{3}{2}} \sqrt{9-4x^2}$ $\cancel{\int (9-4x^2)^{1/2} = \frac{2}{3}(9-4x^2)^{3/2}}$
	C) For what value of x does $\int_0^x t^2 dt = 2$ $\int_0^x t^2 dt = 2$ $\frac{1}{3}t^3\Big]_0^x = 2$ $\frac{1}{3}x^3 - \frac{1}{3}(0)^3 = 2$ $\frac{1}{3}x^3 = 2$ $x^3 = 6$ $x = \sqrt[3]{6}$
	D) For what value of x does $\int_0^x e^{-t^3} dt = .5695$ $\int_0^x e^{-t^3} dt = .5695$
$\sqrt[5]{1-x^5}=0$ $1-x^5=0$ $1=x^5$ $1=x$	E) Find the area of the region in the first quadrant enclosed by the coordinate axes and the graph of $x^5+y^5=1$. $\int_0^1 \sqrt[5]{1-x^5}$ $y^5=1-x^5$ $y=\sqrt[5]{1-x^5}$
	F) Find the $\boxed{\text{average value}}$ of $\sqrt{\sin x}$ on the interval [1, 2]. $\frac{1}{1}\int_1^2 \sqrt{\sin x}$