

Day #58 Homework

In problems 1 – 6, find the indefinite integral.

1. $\int x^3(x^4 + 3)^3 dx$	2. $\int (x)\sqrt[3]{1-2x^2} dx$
3. $\int x^3 \sin(x^4) dx$	4. $\int \frac{x^3}{(1+x^4)^2} dx$
5. $\int 5x\sqrt{1-x^2} dx$	6. $\int u^2\sqrt{u^3+2} du$

For problems 7 and 8, find the indefinite integral by using substitution.

7. $\int x\sqrt{2x-1} dx$

8. $\int (x+1)\sqrt{2-x} dx$

9. Find the value of $\int_1^5 \frac{x}{\sqrt{2x-1}} dx$. Show your work and then check using a graphing calculator.