10.2 u substitution Indefinite Integrals

NAME:_____

Corrective Assignment

DATE:_____

Find the indefinite integrals.

1. $\int x(x^2 + 3)^5 \, dx$

2. $\int \sin(x)\cos^3(x) \, dx$

3. $\int \frac{2x-1}{x^2-x+5} \, dx$

4. $\int \cos x \sqrt{\sin x} \, dx$

5. $\int \frac{x^3}{(5x^4+2)^3} \, dx$

6. $\int 2x \, e^{3x^2} \, dx$

Find the indefinite integrals.

7. $\int (6x^2 - 1)(2x^3 - x)^3 \, dx$

8. $\int \sec(5x) \tan(5x) \, dx$

9. $\int \frac{\sqrt{\ln(x)}}{x} \, dx$

10. $\int \frac{x^3 - 4}{x^2} \, dx$

ANSWERS TO CORRECTIVE ASSIGNMENT

1. $\frac{1}{12}(x^2 + 3)^6 + C$	2. $-\frac{1}{4}\cos^4 x + C$	3. $\ln\lvert x^2 - x + 5\rvert + C$	4. $\frac{2}{3}(\sin x)^{\frac{3}{2}} + C$
5. $\frac{-1}{40(5x^4+2)^2} + C$	6. $\frac{1}{3}e^{3x^2} + C$	7. $\frac{1}{4}(2x^3 - x)^4 + C$	8. $\frac{1}{5}\sec(5x) + C$
9. $\frac{2}{3}(\ln x)^{\frac{3}{2}} + C$	10. $\frac{1}{2}x^2 + \frac{4}{x} + C$		