

Assignment:: Intergration by substitution

Date _____ Period _____

Evaluate each indefinite integral.

1) $\int 4e^{2x} \sin(e^{2x} - 2) dx$

2) $\int -12e^{3x} \cos(e^{3x} + 2) dx$

3) $\int 2e^{2x} \cos(e^{2x} - 1) dx$

4) $\int 5x^4 \cos(x^5 - 2) dx$

5) $\int -8e^{4x} \sin(e^{4x} + 2) dx$

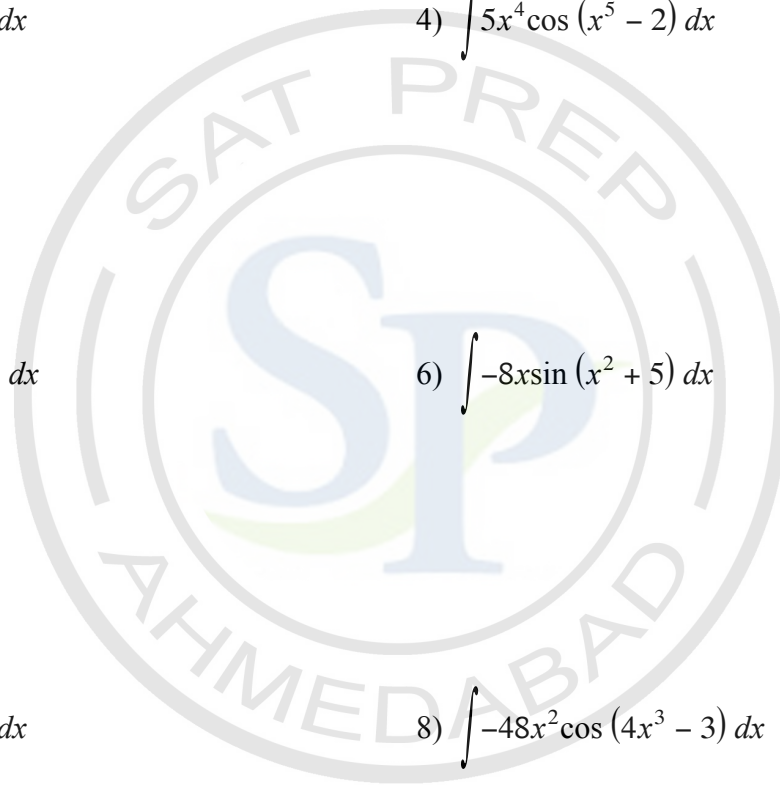
6) $\int -8x \sin(x^2 + 5) dx$

7) $\int 2e^{2x} \cos(e^{2x} - 4) dx$

8) $\int -48x^2 \cos(4x^3 - 3) dx$

9) $\int -10e^{5x} \cos(e^{5x} + 4) dx$

10) $\int 45x^2 \sin(5x^3 - 3) dx$



Answers to Assignment (ID: 1)

1) $-2\cos(e^{2x} - 2) + C$

2) $-4\sin(e^{3x} + 2) + C$

3) $\sin(e^{2x} - 1) + C$

4) $\sin(x^5 - 2) + C$

5) $2\cos(e^{4x} + 2) + C$

6) $4\cos(x^2 + 5) + C$

7) $\sin(e^{2x} - 4) + C$

8) $-4\sin(4x^3 - 3) + C$

9) $-2\sin(e^{5x} + 4) + C$

10) $-3\cos(5x^3 - 3) + C$

