***Circuit Training* –Basic Antiderivatives** **NAME_____**

Work the first problem in the space provided. Circle your answer. Find your answer among the choices. Put #2 in the problem blank. Work that question and proceed in this manner until finished. Make sure you ***clearly communicate*** in each cell ***how*** you are getting your answer.☺

Answer: $4\ln\|x\|+\frac{2}{3x^6}+C$ # 1 $\int 2x\,dx$	Answer: $\frac{5}{8}x^{8/5}+C$ # _____ $\int \frac{4}{x^2}dx$
Answer: x^3+x^2+C # _____ $\int \frac{1}{x^5}dx$	Answer: $\frac{2}{3}x^{3/2}+C$ # _____ $\int \sqrt[3]{x^2}\,dx$
Answer: $\frac{-4}{x}+C$ # _____ $\int(5-\cos x)\,dx$	Answer: x^2+C # _____ $\int 5\cos x\,dx$
Answer: $\frac{1}{9}x^9+C$ # _____ $\int 5\sin x\,dx$	Answer: $\frac{1}{3}x^9+C$ # _____ $\int \sec^2 x\,dx$
Answer: $\frac{1}{2}x^2-e^x+C$ # _____ $\int x^{5/3}\,dx$	Answer: $-\frac{2}{x^2}+C$ # _____ $\int(\sec x\tan x-\sin x)\,dx$
Answer: $\frac{3}{8}x^{8/3}+C$ # _____ $\int \sqrt{x}\,dx$	Answer: $-5\cos x+C$ # _____ $\int 2e^x\,dx$

Answer: $5\sin x + C$ #_____ $\int 3x^2\,dx$	Answer: $\tan x + C$ # _____ $\int x^{3/5}\,dx$
Answer: $5x - \sin x + C$ # _____ $\int \left(x - e^x\right) dx$	Answer: $x^3 + C$ # _____ $\int x^8\,dx$
Answer: $2e^x + C$ #_____ $\int \left(3x^2 + \cos x\right) dx$	Answer: $\sec x + \cos x + C$ # _____ $\int \left(x - \frac{1}{x}\right) dx$
Answer: $\frac{3}{5}x^{5/3} + C$ # _____ $\int 3x(x-1) dx$	Answer: $x + \cos x + C$ # _____ $\int 3x^8\,dx$
Answer: $-\frac{1}{4x^4} + C$ # _____ $\int \left(\frac{4}{x} - \frac{4}{x^7}\right) dx$	Answer: $x^3 + \sin x + C$ # _____ $\int (1 - \sin x)\,dx$
Answer: $\frac{1}{2}x^2 - \ln\lvert x\rvert + C$ # _____ $\int \left(3x^2 + 2x\right) dx$	Answer: $x^3 - \frac{3}{2}x^2 + C$ # _____ $\int \frac{4}{x^3}\,dx$