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**MATH 2301 GW26: Good and Bad Indefinite Integral Solutions (Section 5.1)**

One of these five solutions is correct. Circle it.

Each of the other solutions has at least one invalid step. Cross out all the invalid equal signs.

$$\int \frac{2}{7x^5} dx = \int 2(7x^{-5})dx = 2\left(\frac{7x^{-4}}{-4}\right) + C = -\frac{7x^{-4}}{2} + C = -\frac{7}{2(x^4)} + C = -\frac{7}{2x^4} + C$$

$$\int \frac{2}{7x^5} dx = \int \frac{2x^{-5}}{7} dx = \frac{2x^{-4}}{7(-4)} + C = \frac{1}{7(-4)(2x^4)} + C = -\frac{1}{56x^4} + C$$

$$\int \frac{2}{7x^5} dx = \int \frac{2x^{-5}}{7} dx = \frac{2x^{-4}}{7(-4)} + C = -\frac{x^{-4}}{7(2)} + C = -\frac{1}{14x^4} + C$$

$$\int \frac{2}{7x^5} dx = \int 2(7x^{-5})dx = 2\left(\frac{7x^{-4}}{-4}\right) + C = -\frac{7x^{-4}}{2} + C = -\frac{1}{2(7x^4)} + C = -\frac{1}{14x^4} + C$$

$$\int \frac{2}{7x^5} dx = \int \frac{2x^{-5}}{7} dx = \frac{2x^{-6}}{7(-6)} + C = -\frac{x^{-6}}{7(3)} + C = -\frac{1}{21x^6} + C$$

One of these four solutions is correct. Circle it.

Each of the other solutions has at least one invalid step. Cross out all the invalid equal signs.

$$\int x(x^2 + 1)dx = \frac{x^2}{2}\left(\frac{x^3}{3} + 0\right) + C = \frac{x^5}{6} + C$$

$$\int x(x^2 + 1)dx = \frac{x^2}{2}\left(\frac{x^3}{3} + x\right) + C = \frac{x^5}{6} + \frac{x^3}{2} + C$$

$$\int x(x^2 + 1)dx = \int x^3 + xdx = \frac{x^4}{4} + 1 + C$$

$$\int x(x^2 + 1)dx = \int x^3 + xdx = \frac{x^4}{4} + \frac{x^2}{2} + C$$