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a) $\int \sin 7x \, dx = \frac{1}{7} \int 7 \sin 7x \, dx =$

$t = 7x$

$dt = 7 \, dx$

$= \frac{1}{7} \int \sin t \, dt = \frac{1}{7} \cdot (-\cos t) + c = \underline{\underline{-\frac{\cos 7x}{7} + c}}$

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b) $\int 5k \cos \frac{8}{3} x \, dx = \frac{3}{8} \cdot 5k \cdot \int \frac{8}{3} \cos \frac{8}{3} x \, dx =$

$t = \frac{8}{3} x$

$dt = \frac{8}{3} dx$

$= \frac{3}{8} \cdot 5k \cdot \int \cos t \, dt = \frac{15k}{8} \cdot \sin t + c = \underline{\underline{\frac{15k}{8} \cdot \sin \frac{8}{3} x + c}}$

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c) $\int 3e^{-x} dx = -3 \int -e^{-x} dx = -3 \int e^t dt = -3 \cdot e^t + c =$

$t = -x$

$dt = -dx$

$= \underline{\underline{-3 \cdot e^{-x} + c}}$

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d) $\int 2e^{3x-1} dx = \frac{2}{3} \int 3e^{3x-1} dx = \frac{2}{3} \int e^t dt =$

$t = 3x - 1$

$dt = 3 \, dx$

$= \frac{2}{3} e^t + c = \frac{2}{3} e^{3x-1} + c$