4) $\int \cos(7x+5)\,dx$

$u = 7x + 5$

$du = 7dx$

$\frac{1}{7}du = dx$

$\int (\cos u) \cdot \frac{1}{7}\,du$

$= \frac{1}{7}\sin u + C = \frac{1}{7}\sin(7x+5) + C$

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

$u = x^3$

$du = 3x^2dx$

$\frac{1}{3}du = x^2dx$

$\frac{1}{3}\int \sin u\,du$

$= -\frac{1}{3}\cos u + C = -\frac{1}{3}\cos x^3 + C$

6) $\int \sin^4 x \cdot \cos x\,dx$

$u = \sin x$

$du = \cos x\,dx$

$\int u^4\,du = \frac{1}{5}u^5 + C$

$= \frac{1}{5}(\sin^5 x) + C$