

Find the indefinite integrals.

(1) $\int 5x^{\frac{2}{3}} dx$

(2) $\int \frac{7}{x^3} dx$

(3) $\int \cos x + 6 dx$

(4) $\int x \sin x^2 - 6 dx$

(5) $\int 3e^{-5t} dt$

(6) $\int \frac{x^3 + 2x - 7}{x} dx$

(7) $\int x\sqrt{3x^2 + 1} dx$

(8) $\int \frac{e^t}{e^t + 1} dt$

(9) $\int \frac{x}{\sqrt{x+1}} dx$

(10) $\int u2^{u^2} du$

(11) $\int \sec \pi x \tan \pi x dx$

(12) $\int \frac{1}{x} \ln x dx$