

$$9.1) \int \frac{2x+3}{(x-2)(x+5)} dx = \int \frac{2x+3}{x^2+3x-10} dx =$$

$$= \ln|x^2+3x-10| + C$$

$$9.2) \int e^{2x} \cos 3x dx = \cos(3) \int x \cdot e^{2x} dx =$$

$$= \frac{2x \cdot e^{2x} \cos(3) - e^{2x} \cos(3)}{4} + C$$

$$9.3) \int_0^{+\infty} x e^{-x} dx = \frac{1}{2} - \frac{\ln 2}{2} = \frac{1 - \ln 2}{2} + C$$

$$9.4) \int_2^{\infty} \frac{dx}{x^2+x-2} = \int \frac{1}{(x-1)(x+2)} dx =$$

$$= \frac{2 \ln 2}{3}$$