Integrals

$$\int \frac{1}{x} dx$$

$$\int cos(x) dx$$

$$\int sin(x) dx$$

$$\int b^x dx$$

$$\iiint 1 \, dx \, dy \, dz$$

u-Substitution:

$$\int e^{5x+2} dx$$

$$\int 4cos(3x) dx$$

$$\int \sqrt{7x+9} dx$$

Integration by parts:

$$\int udv = uv - \int vdu$$

$$\int ln(x) dx$$

$$\int t^7 cos(2t^4) dt$$

Hard Ones:

$$\int \frac{1}{ky} dy = \int dx$$

$$\int \frac{1}{1+e^{-x}} dx$$

$$\int \frac{sin(ln(x))}{x} dx$$

Answers: $ln|x|, sin(x), -cos(x), ln(x), xyz$

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$[x \cdot ln(x) - 1], [-\frac{1}{8}t^4 cos(2t^4) + \frac{1}{16} sin(2t^4) + c]$