

①  $\int x dx$

②  $\int 3 dx$

③  $\int 3x dx$

④  $\int dx$

⑤  $\int \frac{x^4}{4} dx$

⑥  $\int \frac{2x^3}{7} dx$

⑦  $\int \frac{1}{x^2} dx$

⑧  $\int \frac{3}{x^2} dx$

⑨  $\int \frac{1}{3x^2} dx$

⑩  $\int \frac{dx}{2x^5}$

⑪  $\int \frac{4}{3x^5} dx$

⑫  $\int \sqrt{x} dx$

⑬  $\int 3\sqrt{x} dx$

⑭  $\int \sqrt[3]{x} dx$

⑮  $\int 4\sqrt[5]{x^2} dx$

⑯  $\int \frac{\sqrt[6]{x}}{2} dx$

⑰  $\int \frac{2}{\sqrt[3]{x}} dx$

⑱  $\int \frac{dx}{2\sqrt[4]{x^3}}$

⑲  $\int (5 - 3x)^2 dx$

⑳  $\int (1 + \frac{1}{x^2})^2 dx$

㉑  $\int 3\sqrt{x}(1 - \sqrt{x}) dx$

㉒  $\int \frac{4+x^4}{x^3} dx$

㉓  $\int \frac{4+x^3}{x^5} dx$

㉔  $\int \frac{x+5x^7}{x^3} dx$

㉕  $\int \frac{2+\sqrt{x}}{\sqrt{x}} dx$

㉖  $\int \frac{6x^2+x-7}{\sqrt{x}} dx$

㉗  $\int \frac{6x^2+x-7}{x\sqrt{x}} dx$

㉘ This exercise did not include:  $\int \frac{1}{x} dx$  Investigate this integral.

Do not Google the answer! Desmos, however, might be useful in your investigating.

㉙ Create another 3 integration problems of your own. One which is similar to the questions you found easy, one which is similar to the problems you found to be of medium difficulty and one which is similar to the ones you found hard!

Now create a visual guide on how to calculate each of the three types of integral.