



VIDEO PLAYLIST: parkermaths.com/inspection1



STANDARD INTEGRALS ▶ KEY FACTS

$$\int \sin x \, dx = -\cos x + c$$

$$\int \cos x \, dx = \sin x + c$$

$$\int \sec^2 x \, dx = \tan x + c$$

$$\int \frac{1}{x} \, dx = \ln x + c$$



INTEGRATION BY INSPECTION ▶ EXAMPLES

Use the videos to complete the examples below.

As you progress, try to attempt the question yourself and use the video to check your answer.

Note: The unfamiliar integrals listed at the beginning of the video are in the formula booklet.

Video 1 | Q1.

$$\int (2x+3)^4 \, dx$$

Q2

$$\int e^{4x+1} \, dx$$

Q3.

$$\int \frac{1}{3x+2} \, dx$$

Q4.

$$\int (\cos(2x+3)) \, dx$$

Q5.

$$\int \sec^2 3x \, dx =$$

Video 2 Q1.

$$\int (2x+3)^3 \, dx$$

Q2. $\int (5x - 7)^8 dx$

Q3. $\int (4x - 5)^{\frac{1}{2}} dx$

Q4. $\int \left(5 - \frac{2}{3}x\right)^{-\frac{1}{5}} dx$