

Start  
Match the DEs  
with their  
integrating factors

$$\frac{dy}{dx} - \frac{2y}{(2x+1)} = 0$$

$y = \sin x$	$\frac{dy}{dx} - \frac{y}{x} = 0$	$y = \frac{1}{x}$	$y = x + 1$	$\frac{dy}{dx} + \frac{y}{(x+1)} = 0$	$y = \frac{1}{2x+1}$
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$$\frac{dy}{dx} + y \cot x = 0$$

$$y = 2x + 1$$

$\frac{dy}{dx} + \frac{2y}{(2x+1)} = 0$	$y = x$	$\frac{dy}{dx} + \frac{y}{x} = 0$	$y = e^{2x}$	$\frac{dy}{dx} + 2y = 0$	$y = \frac{1}{x+1}$
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$$\frac{dy}{dx} - \frac{y}{(x+1)} = 0$$

$$y = \sqrt{2x+1}$$

Finish	$y = \sec x$	$\frac{dy}{dx} + y \tan x = 0$	$\frac{dy}{dx} - 2y = 0$	$y = e^{-2x}$	$\frac{dy}{dx} + \frac{y}{(2x+1)} = 0$
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