

$f(x) = (x-3)^5$ $f'(x) = ?$
$\frac{1}{2}$

$\int 3x - 4x \, dx$	$24x - e^x$	$f(x) = 4x - e^x$ Find $f''(x)$	$\frac{d(4t - 3t)}{dt}$	$4 - 6t$	The gradient of the normal to $y = 3 - x$ at $(1, 2)$
----------------------	-------------	------------------------------------	-------------------------	----------	---

$$x^2 - 2x + c$$

$$\int e^{\frac{x}{2}} \, dx$$

$2e^{\frac{x}{2}} + c$	$3\cos(3x)$	Differentiate $\sin(3x)$	$\frac{d(\ln 7y)}{dy}$	$\frac{1}{y}$	2
------------------------	-------------	--------------------------	------------------------	---------------	-----

$\int_0^2 2x - 1 \, dx$
No

$\frac{d(3t - 4t)}{dt}$	The tangent to $y = 2x$ at $(1, 2)$	$y = 4x - 2$	$\frac{1}{(x+1)}$	Differentiate $\frac{x}{x+1}$	Is $y = x$ an increasing function?
-------------------------	-------------------------------------	--------------	-------------------	-------------------------------	------------------------------------

$3 - 8t$
$f(x) = e^{kx}$
$f'(x) = ?$

$\int e^{2x} dx$	$3\cos(x)$	<i>Differentiate</i> $3\sin(x)$	$\frac{-1}{(x-1)^2}$	<i>Differentiate</i> $\frac{x}{x-1}$	ke^{kx}
------------------	------------	------------------------------------	----------------------	---	-----------

$\frac{1}{2}e^{2x} + c$					
$(1, 3)$					

<i>The turning point of</i> $y = (x-1)^2 + 3$	<i>Differentiate</i> $\ln(3x)$	$\frac{1}{x}$	<i>Is $y = x^2$ an increasing function?</i>	<i>Yes</i>	$2\sec(2x)$
--	-----------------------------------	---------------	--	------------	-------------

$f(x) = \tan(2x)$
$f'(x) = ?$
<i>Differentiate</i> $e^x(x+1)$

$5(x-3)^4$	$y = 12x - 23$	<i>The tangent to $y = 3x^2$ at</i> $(2, 1)$	$(x^2 + 2x - 1)e^x$	<i>Differentiate</i> $e^x(x-1)$	$(x^2 + 2x + 1)e^x$
------------	----------------	--	---------------------	------------------------------------	---------------------