

$$f(x) = (x-3)^5$$

$$f'(x) = ?$$

$$\frac{1}{2}$$

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

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

$2e^{\frac{x}{2}} + c$	$3\cos(3x)$	Differentiate $\sin(3x)$	$\frac{d(\ln 7y)}{dy}$	$\frac{1}{y}$	2
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$$\int_0^2 2x - 1 \, dx$$

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

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

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

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