



# Derivative Rules - Chain Rule Negative Powers as Division to Derivative

<p>1</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(-x + 7)^3}</math></p>	<p>2</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(-3x + 2)^3}</math></p>
$f'(x) = 3(-x + 7)^{-3}$	$f'(x) = 9(-3x + 2)^{-3}$
$f'(x) = 3(-x + 7)^{-4}$	$f'(x) = 9(-3x + 2)^{-4}$
<p>3</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(-2x - 4)^2}</math></p>	<p>4</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(x + 7)^3}</math></p>
$f'(x) = 4(-2x - 4)^{-2}$	$f'(x) = (x + 7)^{-4}$
$f'(x) = 4(-2x - 4)^{-3}$	$f'(x) = -3(x + 7)^{-4}$
<p>5</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(-x + 6)^2}</math></p>	<p>6</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(2x^2 + 6)^3}</math></p>
$f'(x) = 2(-x + 6)^{-2}$	$f'(x) = (2x^2 + 6)^{-4}(4x)$
$f'(x) = -(-x + 6)^{-3}$	$f'(x) = -3(2x^2 + 6)^{-4}(4x)$
<p>7</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(-3x - 5)^3}</math></p>	<p>8</p> <p>Find the derivative <math>f'(x)</math> using the chain rule. <math>f(x) = \frac{1}{(-x - 5)^3}</math></p>
$f'(x) = -3(-3x - 5)^{-4}$	$f'(x) = -(-x - 5)^{-4}$
$f'(x) = 9(-3x - 5)^{-4}$	$f'(x) = 3(-x - 5)^{-4}$