

CW# _____

Name: _____

1.1.6 Are they equivalent?

.....
Equivalent Expressions



#52 EQUIVALENT EXPRESSION SORT

$-1-x$	$\frac{2x-5}{x-1}$	$(x-1)^{3/2} + (x-1)^{1/2}$	$x\sqrt{x-1}$	$\frac{\frac{1}{x}-x}{1-\frac{1}{x}}$	$\sqrt{x-1}\sqrt{x-1}$
$(x-4)(x-5)$	$\frac{x}{x-1}+1$	$\frac{-3}{x-1}+2$	$\frac{6x^2-5x+4}{x-1}$	$\frac{1-x^2}{x-1}$	
$2+\frac{1}{x-1}$	$x-1$	$x(x-1)+5(x-1)$	$\frac{x^2-(x-1)^2}{x-1}$	$6x+1+\frac{5}{x-1}$	
$\frac{x}{x-1}$	$(x+5)(x-1)$	$x^2-x+5x-5$	$(x-1)^2-7(x-1)+12$	$\frac{1+x^{-1}}{1-x^{-2}}$	

Justify why two or more expressions are equivalent. Record your justifications and be prepared to share your reasoning with the class.

#53 In pairs, choose a set of equivalent expressions. Do your best to show the algebraic steps required to get from one expression to the other. How many sets of equivalent expressions can you do this for?

#54 Is every set of equivalent expressions you found equivalent for all real values of x ? If so, why? If not, which ones are not, and why?