

# MasterMath

## Simplifying Rational Expressions

Name \_\_\_\_\_

Date \_\_\_\_\_

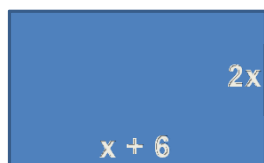
1. Find any excluded values:

	Excluded Values	Excluded Values
$\frac{3x}{2}$	none	
$\frac{-z}{4z + 1}$	$-\frac{1}{4}$	
$\frac{6 + v}{x^2 - 4}$	2	-2
$\frac{28}{2m^2 - m}$	0	$\frac{1}{2}$
$\frac{2b}{b^2 - 6b + 9}$	3	

2. Simplify these expressions

$\frac{3x + 33}{x + 11}$	3
$\frac{h + 3}{h^2 - h - 12}$	$\frac{1}{h - 4}$
$\frac{6m^2 - 24m}{2m^2 - 8m}$	3
$\frac{k^2 + 16k + 64}{k^2 + 7k - 8}$	$\frac{k + 8}{k + 1}$
$\frac{2x - 8}{4 - x}$	-2
$\frac{h + 4}{16 - h^2}$	$\frac{-1}{h - 4}$
$\frac{f + 5}{f^3 + 10f^2 + 25f}$	$\frac{1}{f^2 + 5f}$

3. Write and simplify a rational expression for the ratio of the perimeter to the area of this figure.



$3(x + 2)$
$x(x + 6)$

4. The expression  $\frac{m}{b^2 + 5b - 6}$  simplifies to  $\frac{2b + 5}{b + 6}$ . What does m equal?

$2b^2 + 3b - 5$
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