

## RATIONALS – 1. Simplifying

Name:

Date:

Please remember to show/communicate all your work. You DO NOT need to answer every question, two correct answers at any level will demonstrate a student's level of attainment.

LEGEND						
✓	<b>M</b>	<b>x</b>	<b>S</b>	<b>N</b>	<b>G</b>	<b>H</b>
correct	mostly correct	incorrect	silly mistake	did not know how to start or skipped	with group	got help

	Mild (🌶️🌶️)		Medium (🌶️🌶️🌶️)		Spicy (🌶️🌶️🌶️🌶️)	
Questions	#1	#2	#3	#4	#5	
Results						

1. State the non-permissible values:

a)  $\frac{4x^2 - 16x - 12}{x^2 - 9}$

b)  $\frac{x^2 - 3x - 10}{x^2 + x - 2} \div \frac{x^2 - 10x + 25}{x^2 - 1}$

2. Simplify and state the non-permissible values:

$$\frac{3c}{c^2 - 25} \times \frac{c - 5}{6c^2 - 3c} \div \frac{2}{c + 5}$$

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3. Simplify and state the non-permissible values:

$$\frac{5 - 2x}{x + 2} + \frac{x^2}{x^2 - 4} - 5$$

4. Without duplicating values, use the digits 0 to 9 to create a true statement. State the non-permissible values. Explain some of the steps you took to solving, your initial thoughts/attempts, and include any rough work to help show your thinking.

$$\frac{\square(x + \square)(x - \square)}{\square(x^2 + \square x - \square)} = \square$$

## **RATIONALS – 1. Simplifying**

5. The average of three positive numbers can be represented using the expression  $\frac{43x+92}{(60x)(x+4)}$
- . If two of the numbers are  $\frac{1}{x+4}$  &  $\frac{2}{5x}$  determine the third value 'n'