$\qquad$ Date $\qquad$ Pd $\qquad$

### 7.1 Rational Functions DAY ONE CYU

$\square$ Use when you get it right all by yourself
$\boldsymbol{S}$ Use when you did it all by yourself, but made a silly mistake H Use when you could do it alone with a little help from teacher or peer
$\boldsymbol{G}$ Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
$N$ Use when a question was not even attempted

| CONCEPTS | BASIC | INTERMEDIATE | ADVANCED |
| :--- | :---: | :---: | :---: |
| Domain in interval notation. | 1,2 | 3 | 4 |
| Simplifying Rational Expressions | 5,6 | 7,8 | 9,10 |

Find the domain of each rational expression in interval notation.

1. $f(x)=\frac{5 x-7}{4}$
2. $g(x)=\frac{x^{2}+1}{2 x}$
3. $h(x)=\frac{3 x}{7-x}$
4. $R(x)=\frac{x}{3 x-1}$

Simplify each expression. Restrict the domain in interval notation too.
5. $\frac{x+7}{7+x}$
6. $\frac{y-9}{9-y}$
7. $\frac{2}{8 x+16}$
8. $\frac{-4 x-4 y}{x+y}$
9. $\frac{7 x+35}{x^{2}+5 x}$
10. $\frac{9 x+99}{x^{2}+11 x}$

CYU Reflection: How far can you go: basic, intermediate, or advanced?

## Rate your mastery level!

 How confident are you with the skills this CYU covered? Circle the score you would give yourself.

