

7.1 Rational Functions DAY ONE CYU

Use when you get it right all by yourself
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
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. $f(x) = \frac{5x-7}{4}$

$(-\infty, \infty)$

2. $g(x) = \frac{x^2+1}{2x}$

$2x \neq 0$
 $x \neq 0$
 $(-\infty, 0) \cup (0, \infty)$

3. $h(x) = \frac{3x}{7-x}$

$(-\infty, 7) \cup (7, \infty)$

4. $R(x) = \frac{x}{3x-1}$

$(-\infty, \frac{1}{3}) \cup (\frac{1}{3}, \infty)$

Simplify each expression. Restrict the domain in interval notation too.

5. $\frac{x+7}{7+x}$

1

$(-\infty, -7) \cup (-7, \infty)$

6. $\frac{y-9}{9-y}$

-1

$(-\infty, 9) \cup (9, \infty)$

7. $\frac{2}{8x+16}$

$\frac{1}{4(x+2)}$

$(-\infty, -2) \cup (-2, \infty)$

8. $\frac{-4x-4y}{x+y}$

-4

no domain restriction
 $x \neq -y$

9. $\frac{7x+35}{x^2+5x}$

$\frac{7}{x}$

$(-\infty, -5) \cup (-5, 0)$
 $\cup (0, \infty)$

10. $\frac{9x+99}{x^2+11x}$

$\frac{9}{x}$

$(-\infty, -11) \cup (-11, 0)$
 $\cup (0, \infty)$

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.

