

Name Key

Date _____ Pd _____

Bridge to Algebra 2

7.5 Solving Equations with Rational Expressions DAY THREE 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
Determining an LCD			12, 13
Restricting the domain in interval notation			12, 13
Solving rational equations			12, 13
Checking solutions			12, 13
Solving literal equations	1	3, 5	2, 4, 6
Writing phrases as expressions	7	8	
Setting up & solving proportions		9	
Identifying x- & y-intercepts	10	11	

Solve each equation for the indicated variable.

1. $R = \frac{E}{I}$ for I (Electronics: resistance of a circuit)

$$I = \frac{E}{R}$$

2. $T = \frac{2U}{B+E}$ for B (Merchandising: stock turnover rate)

$$B = \frac{2U}{T} - E$$

3. $B = \frac{705w}{h^2}$ for w (Health: body-mass index)

$$W = \frac{Bh^2}{705}$$

4. $N = R + \frac{V}{G}$ for G (Urban forestry: tree plantings per year)

$$G = \frac{V}{N-R}$$

5. $\frac{C}{\pi r} = 2$ for r (Geometry: circumference of a circle)

$$r = \frac{C}{2\pi}$$

6. $\frac{1}{y} + \frac{1}{3} = \frac{1}{x}$ for x

$$X = \frac{3y}{(3+y)}$$

Write each phrase as an expression.

7. The reciprocal of x $\frac{1}{x}$

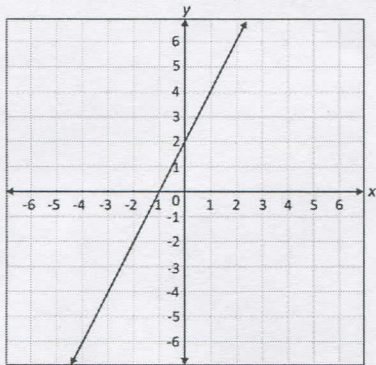
8. The reciprocal of x , added to the reciprocal of 2. $\frac{1}{x} + \frac{1}{2}$

Answer each question.

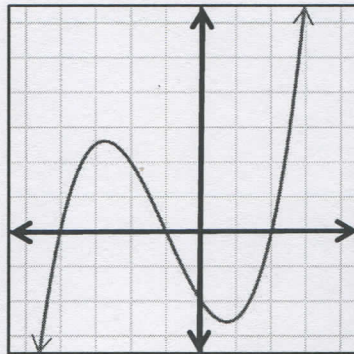
9. If a tank is filled in 3 hours, what fractional part of the tank is filled in 1 hour? $\frac{1}{3}$

Identify the x - and y -intercepts in coordinate form.

10. 11.



$x: (-1, 0)$ $y: (0, 2)$



$x: (-4, 0)$
 $(-1, 0)$
 $(2, 0)$ $y: (0, -2)$

State the LCD. Restrict the domain. Then solve each equation. Check your solution(s).

12. $0 = \frac{5}{x^2+4x+3} + \frac{2}{x^2+x-6} - \frac{3}{x^2-x-2}$

$x = \frac{17}{4}$

13. $\frac{-2}{x^2+2x-8} + \frac{1}{x^2+9x+20} = \frac{-4}{x^2+3x-10}$

$x = -\frac{4}{3}$

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.

