

Solving Rational Equations Hidden Picture

Name _____

Directions: Solve the following rational equations. Then look for the solutions on the grid. If one or both of the solutions appear on the grid, shade in that square. Once all problems are complete, the hidden picture will be revealed!

$$1. \frac{4}{x+2} + \frac{3}{x+5} = \frac{5}{x^2+7x+10}$$

$$2. y + \frac{6}{y} = 5$$

$$3. \frac{5}{x+2} + \frac{x}{x-2} = \frac{8}{x^2-4}$$

$$4. \frac{m+2}{m-1} + \frac{4}{m-5} = \frac{6}{m^2-6m+5}$$

$$5. \frac{7}{s+4} - \frac{2}{s-3} = \frac{2s-9}{s^2+s-12}$$

$$6. \frac{a}{a+5} = \frac{3}{a+1}$$

$$7. \frac{3}{m-1} = \frac{2m}{m+4}$$

$$8. 2 = \frac{y}{y+3} - \frac{3}{y-5}$$

$$9. \frac{4u}{u+3} + u = \frac{8}{u+3}$$

$$10. \frac{2}{w} + 3 = \frac{7}{w+6}$$

$$11. \frac{1}{x+3} + \frac{5}{x^2-9} = \frac{2}{x-3}$$

$$12. \frac{-1}{y-3} = \frac{7y+3}{y^2-8y+15} + \frac{3y}{y-5}$$

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$$13. \frac{4x+1}{x+1} = \frac{12}{x^2-1} + 3$$

$$14. x + 3 = \frac{8x}{x-3}$$

$$15. \frac{5}{3m} = \frac{2}{3m-7}$$

$$16. \frac{m^2+11m+30}{4m^2-28m-120} = \frac{m+10}{4m-40} + \frac{m}{4m+12}$$

$$17. \frac{1}{x} = \frac{6}{5x} + 1$$

$$18. \frac{r-4}{5r} = \frac{1}{5r} + 1$$

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10	$\frac{1}{5}$	$\frac{1}{2}$	$-\frac{1}{4}$	6	16	-15	$-\frac{9}{2}$	$-\frac{3}{5}$
11	17	$-\frac{5}{2}$	$\frac{5}{4}$	$\frac{4}{5}$	$\frac{5}{6}$	12	18	$-\frac{4}{5}$
20	$-\frac{1}{5}$	-9	1	$\frac{7}{6}$	19	$\frac{1}{8}$	$-\frac{9}{4}$	$\frac{4}{3}$
$\frac{20}{3}$	$\frac{5}{2}$	$\frac{10}{3}$	$\frac{6}{7}$	$-\frac{4}{3}$	21	$-\frac{5}{3}$	3	-17
$\frac{35}{9}$	$\frac{1}{5}$	$-\frac{6}{5}$	$\frac{9}{5}$	2	$\frac{1}{9}$	-5	$-\frac{3}{2}$	-2
9	-7	4	5	$-\frac{5}{4}$	$\frac{7}{3}$	$\frac{6}{5}$	8	22
0	-22	15	$\frac{3}{7}$	-1	$-\frac{9}{7}$	$\frac{7}{8}$	$-\frac{2}{5}$	-13
$-\frac{2}{3}$	-14	13	$-\frac{8}{5}$	-8	$\frac{8}{3}$	$-\frac{9}{5}$	$-\frac{1}{3}$	$\frac{7}{2}$
-3	$-\frac{1}{2}$	$-\frac{7}{2}$	$-\frac{7}{6}$	-4	$\frac{9}{8}$	$\frac{2}{3}$	$\frac{8}{5}$	$\frac{6}{7}$
$\frac{2}{5}$	$\frac{8}{7}$	$\frac{21}{4}$	-11	-6	-16	$-\frac{3}{7}$	14	$\frac{4}{9}$
$\frac{9}{7}$	$\frac{9}{34}$	$\frac{1}{7}$	$-\frac{7}{8}$	-19	$\frac{2}{9}$	$\frac{5}{9}$	-10	-18
-12	$\frac{1}{6}$	$-\frac{1}{9}$	23	$-\frac{4}{9}$	-20	-23	$-\frac{1}{8}$	$-\frac{5}{9}$