

A.REI.A.2: Solving Rationals 5

- 1 Which equation is equivalent to $1 - \frac{6}{t^2} = \frac{1}{t}$?
 - 1) $(t-3)(t+2) = 0$
 - 2) $(t-2)(t+3) = 0$
 - 3) $(2t+1)(3t-1) = 0$
 - 4) $(2t-1)(3t+1) = 0$
- 2 Solve for x : $\frac{12}{x^2-16} - \frac{24}{x-4} = 3$
- 3 Solve for all values of x : $\frac{2x}{x+3} + \frac{3}{x-3} = \frac{8}{x^2-9}$
- 4 For all values of x for which the expression is defined, solve for x : $\frac{3}{x+3} + \frac{2}{x-4} = \frac{4}{3}$
- 5 Solve for x : $\frac{4x}{x+2} - \frac{12}{x} = 1$
- 6 Solve for y : $\frac{4}{5y-3} = \frac{2}{3y+4}$
- 7 Solve for r : $\frac{1}{r} = \frac{1}{2} + \frac{1}{3}$
- 8 Solve for the positive value of x : $\frac{x}{3} - \frac{4}{x} = \frac{4}{3}$
- 9 Solve for y : $\frac{y}{y-1} = \frac{8}{y} + \frac{1}{y-1}$
- 10 Solve for x : $\frac{5}{4x} - \frac{6}{3x} = \frac{1}{12}$
- 11 Solve for x : $\frac{2}{x} + \frac{3}{5x} = 1$
- 12 Solve for x : $\frac{2}{3x} + 5 = \frac{4}{x}$
- 13 Solve for x : $\frac{x}{x+5} + \frac{9}{x-5} = \frac{50}{x^2-25}$
- 14 Solve for x : $\frac{x}{x-5} - \frac{2}{x+5} = \frac{50}{x^2-25}$
- 15 Solve for x and express the roots in terms of i :
 $\frac{x+3}{3} + \frac{x+3}{x} = 2$
- 16 Solve for x and express your answer in simplest $a + bi$ form: $16x = 16 - \frac{13}{x}$
- 17 Express the roots of the equation $2x + \frac{5}{x} = 2$ in simplest $a + bi$ form.
- 18 Solve for y and express the roots of the equation in simplest $a + bi$ form: $5y + \frac{5}{y} = 8$
- 19 Solve for x and express the roots in simplest $a + bi$ form: $x + \frac{5}{x} = 2$
- 20 Solve for x and express the roots in simplest $a + bi$ form: $9x + \frac{2}{x} = -6$
- 21 Solve for x and express the roots in simplest $a + bi$ form: $2 + \frac{5}{x^2} = \frac{6}{x}$

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Answer Section

1 ANS: 1 REF: 060227siii

2 ANS:
-6,-2

REF: 060138siii

3 ANS:
 $1, \frac{1}{2}$

REF: 019840siii

4 ANS:
 $-\frac{5}{4}, 6$

REF: 010042siii

5 ANS:
 $-\frac{4}{3}, 6$

REF: 080041siii

6 ANS:
-11

REF: 019705siii

7 ANS:
 $\frac{6}{5}$

REF: 060213siii

8 ANS:
6

REF: 089809siii

9 ANS:
8

REF: 089637siii

10 ANS:
-9

REF: 010204siii

11 ANS:

$$\frac{13}{5}$$

REF: 080308siii

12 ANS:

$$\frac{2}{3}$$

REF: 010410siii

13 ANS:

$$1$$

REF: 069841siii

14 ANS:

$$-8$$

REF: 060342siii

15 ANS:

$$\pm 3i$$

REF: 019736siii

16 ANS:

$$\frac{1}{2} \pm \frac{3}{4}i$$

REF: 080142siii

17 ANS:

$$\frac{1}{2} \pm \frac{3}{2}i$$

REF: 019838siii

18 ANS:

$$\frac{4}{5} \pm \frac{3}{5}i$$

REF: 069841siii

19 ANS:

$$1 \pm 2i$$

REF: 060237siii

20 ANS:

$$-\frac{1}{3} \pm \frac{i}{3}$$

REF: 080341siii

21 ANS:
 $\frac{3}{2} \pm \frac{1}{2}i$

REF: 069740siii