

Name: Key

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples
Rational Equations	The steps to solve an equation with decimals or fractions are exactly the same!
	① Locate the variable.
	② Determine the operation tied to the variable.
	③ Use inverse operations on both sides of the equal sign to solve.
	④ Check your solution!
Set I: Equations with Decimals	Directions: Solve each equation. Check all solutions.
	1. $a - 17.9 = 32.4$ $\quad +17.9 \quad +17.9$ <hr/> $a = 50.3$
	2. $14.7 = 15.3 + n$ $\quad -15.3 \quad -15.3$ <hr/> $n = 0.6$
	3. $-4.5p = -60.3$ $\quad -4.5 \quad -4.5$ <hr/> $p = 13.4$
	4. $-8.5 + k = -27.8$ $\quad +8.5 \quad +8.5$ <hr/> $k = -19.3$
	5. $16 = \frac{y}{0.3} \cdot 0.3$ $\quad 0.3$ $y = 4.8$
	6. $1.6m = -9.44$ $\quad 1.6 \quad 1.6$ <hr/> $m = -5.9$
	7. $7.84 = 2.67 + w$ $\quad -2.67 \quad -2.67$ <hr/> $w = 5.17$
	8. $\frac{c}{8.4} = 6.2 \cdot -8.4$ $\quad -8.4$ <hr/> $c = -52.08$
	9. $-8.01 = p - 4.49$ $\quad +4.49 \quad +4.49$ <hr/> $p = -3.52$
	10. $0.26n = 1.95$ $\quad 0.26 \quad 0.26$ <hr/> $n = 7.5$
	11. $-0.75 = \frac{r}{25.2} \cdot 25.2$ $\quad 25.2$ $r = -18.9$
12. $-19.4 + x = -32.1$ $\quad +19.4 \quad +19.4$ <hr/> $x = -12.7$	

Set 2:

Equations with Fractions

Directions: Solve each equation. Check all solutions.

$$13. n + \frac{1}{4} = \frac{5}{6}$$

$$-\frac{1}{4} \quad -\frac{1}{4}$$

$$n = \frac{7}{12}$$

$$14. \frac{11}{18} = x - 3\frac{2}{3}$$

$$+3\frac{2}{3} \quad +3\frac{2}{3}$$

$$x = 4\frac{5}{18}$$

$$15. -\frac{1}{8} + m = -\frac{7}{24}$$

$$+\frac{1}{8} \quad +\frac{1}{8}$$

$$m = -\frac{1}{6}$$

$$16. a + 8\frac{1}{2} = 5\frac{1}{3}$$

$$-8\frac{1}{2} \quad -8\frac{1}{2}$$

$$a = -3\frac{1}{6}$$



Recall: To divide by a fraction, _____ by its _____!

$$17. \frac{2}{3}x = 48$$

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

$$x = 72$$

$$18. 7 = -\frac{1}{3}w$$

$$-3 \cdot -3$$

$$w = -21$$

$$19. 60 = -\frac{4}{5}k$$

$$-\frac{5}{4} \cdot -\frac{5}{4}$$

$$k = -75$$

$$20. \frac{1}{4}p = -9$$

$$\frac{4}{1} \cdot \frac{4}{1}$$

$$p = -36$$

$$21. \frac{2}{3}x = -\frac{4}{9}$$

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

$$x = -\frac{2}{3}$$

$$22. -1\frac{1}{3} = 2r$$

$$\frac{2}{2} \cdot \frac{2}{2}$$

$$r = -\frac{2}{3}$$

$$23. 7\frac{4}{7}v = -106$$

$$v = -14$$

$$24. -2\frac{1}{12} = \frac{3}{4}c$$

$$c = -2\frac{7}{9}$$