

Warm-Ups & Introduction to Multi-step equations

Date 10/2/18

Period 83/84

(20)

Solve each equation.

$$1) -2 = \frac{v}{19} \cdot 19$$

$$\frac{-2}{19} \cdot 19 = \frac{v}{19} \cdot 19$$

$$-2 = v$$

$$2) n - 3 = -10$$

$$+3 \quad +3$$

$$n = -7$$

$$3) -7 + \frac{x}{10} = -6$$

$$+7 \quad +7$$

$$10 \cdot \frac{x}{10} = 1 \cdot 10$$

$$x = 10$$

$$4) -116 = -6 + 10v$$

$$+6 \quad +6$$

$$\frac{-110}{10} = \frac{10v}{10}$$

$$-11 = v$$

Simplify each expression. \rightarrow no equals sign

$$5) 1 + 3x + 2x - 3$$

$$-2 + 5x$$

$$6) k - 1 + 3k$$

$$4k - 1$$

$$7) -8(a + 6)$$

$$-8a - 48$$

$$8) 3(-7x + 5)$$

$$-21x + 15$$

$$9) -8(k - 5) - k$$

$$-8k + 40 - k$$

$$-9k + 40$$

$$10) 7(x - 3) - 8$$

$$7x - 21 - 8$$

$$7x - 29$$

Solve each equation. \rightarrow has an equals sign

$$11) 2x + 4x = 6$$

$$\frac{6x}{6} = \frac{6}{6}$$

$$x = 1$$

$$12) -3r - 7 + 2r = -9$$

$$-1r - 7 = -9$$

$$+7 \quad +7$$

$$-1r = -2$$

$$r = 2$$

$$13) 4(2b + 4) = 48$$

$$8b + 16 = 48$$

$$-16 \quad -16$$

$$8b = 32$$

$$\frac{8b}{8} = \frac{32}{8}$$

$$b = 4$$

$$14) 45 = -3 + 3(4 + 3n)$$

$$45 = -3 + 12 + 9n$$

$$45 = 9 + 9n$$

$$-9 \quad -9$$

$$36 = 9n$$

$$\frac{36}{9} = \frac{9n}{9}$$

$$4 = n$$

Introduction to Fraction Busters!

$$15) \frac{5}{7} + \frac{x}{7} = \frac{8}{7}$$

$$5 + x = 8$$

$$x = 3$$

\rightarrow if all denominators are the same, can ignore

$$16) \frac{n}{5} - \frac{3n}{10} = \frac{1}{5}$$

$$\frac{2n}{10} - \frac{3n}{10} = \frac{2}{10}$$

$$2n - 3n = 2$$

$$-n = 2$$

$$n = -2$$

- ① create a common denominator
- ② solve by ignoring denominator

$$17) \frac{2}{3} + \frac{3m}{5} = \frac{31}{15}$$

18) Classwork / Homework: Pg 98 #10-34 even; #49 and 52.

$$\frac{10}{15} + \frac{9m}{15} = \frac{31}{15}$$

$$10 + 9m = 31$$

$$-10 \quad -10$$

$$9m = 21$$

$$\frac{9m}{9} = \frac{21}{9}$$

$$m = \frac{7}{3}$$