Name:_____

Linear Equation Review

Solve each linear equation. Show your work.

1. $2(x - 5) - 8 = 20$ 19

2. $2x - (5 - x) = \frac{5}{2}$ 2.5

3. $\frac{1}{4}(x + 2) - 2 = 0.5$ 8

4. $4x - \frac{5 - 2x}{5} = \frac{3}{5}$ $\frac{4}{11}$

Write each repeating decimal as a fraction. Show your work.

5. $0.\overline{2}$ $\frac{2}{9}$

6. $0.9\overline{3}$ $\frac{14}{15}$

7. $0.2\overline{6}$ $\frac{4}{15}$

8. $0.3\overline{16}$ $\frac{313}{990}$

Tell whether each equation has one solution, no solution, or an infinite number of solutions. Show your work.

9 $2x + 4 = -2\left(\frac{1}{2} - x\right)$

No solution

10 $6y + (16 - 2y) = 4(4 + y)$

Identity Infinite Number of Solutions

11 $4x + 5 = 2x - 7$

One solution, $x = -6$

12 $2x + 5 = -4\left(-\frac{5}{4} - \frac{1}{2}x\right)$

Identity Infinite Number of Solutions

13 $8(x + 2) = 2x + 16$

One Solution x=0

14 $3 + \frac{3}{2}x + 4 = 4x - \frac{5}{2}x$

No solution

15 $\frac{3}{2}(2x + 6) = 3x + 9$

Identity Infinite Number of Solutions

16 $\frac{1}{2}(2 - 4x) + 2x = 13$

Identity Infinite Number of Solutions

Find the value of y when $x = 4$.

17 $\frac{1}{7}(3x + y) = x$ 16

18 $\frac{3y + 1}{4} = 2x$ $10\frac{1}{3}$

Complete the table of x- and y-values for each equation.

19 $y = 5(x + 3)$

x	0	1	2
y	?	?	?

15; 20; 25

20 $\frac{x}{4} + y = 1$

x	2	?	?
y	?	0	−0.5

4; 6
0.5

Don't forget to study Math Warm Up Problems from this week!