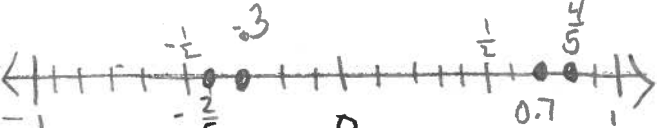


REVIEW

SHOW ALL WORK!!!!!!

<p>1. Simplify the expression using a single exponent.</p> $\frac{9^7}{9^{-3}} = 9^{10}$ $7 + 3 = 10$	<p>2. What is 12% of 45?</p> $\begin{array}{r} 45 \\ \times 12 \\ \hline 90 \\ 450 \\ \hline 540 \end{array}$ <p style="text-align: right;"><u>5.4</u></p>
<p>3. Create a number line from -1 to 1 and place the numbers on it.</p> <p>$-0.3, \frac{4}{5}, 0.7, -\frac{2}{5}$</p> 	<p>4. Solve the equation.</p> $\begin{array}{r} 4x - 3 = -6x + 37 \\ +6x \quad +6x \\ \hline 10x - 3 = 37 \\ +3 \quad +3 \\ \hline 10x = 40 \\ x = 4 \end{array}$

Standard: Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by transforming a given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers). (2-4 in book)

<p>5. Solve the equation.</p> $4(4x - 2) + 1 = 16x - 7$ $16x - 8 + 1 = 16x - 7$ $16x - 7 = 16x - 7$ <p style="text-align: center;">Infinite Solutions</p>	<p>6. Solve the equation.</p> $6x + 26x - 10 = 8(4x + 10)$ $32x - 10 = 32x + 80$ $\begin{array}{r} -32x \quad -32x \\ \hline -10 = 80 \end{array}$ <p style="text-align: center;">NO SOLUTION</p>
<p>7. Solve the equation.</p> $6(x + 2) = 5(x + 7)$ $\begin{array}{r} 6x + 12 = 5x + 35 \\ -5x \quad -5x \\ \hline x + 12 = 35 \\ -12 \quad -12 \\ \hline x = 23 \end{array}$ <p style="text-align: center;"><u>x = 23</u></p>	<p>8. Solve the equation.</p> $4x + x + 4 = 8x - 3x + 4$ $5x + 4 = 5x + 4$ <p style="text-align: center;">Infinite Solutions</p>

9. Explain what it means if an equation is equivalent to $0 = 0$.

Infinite Solutions

10. Classify the equation $170x - 1000 = 30(5x - 30)$ as having one solution, no solution, or infinitely many solutions.

$$170x - 1000 = 150x - 900$$

One Solution

Application Problems:

11. Write an equation that has...

One solution: $3x + 2 = 5x - 4$

No Solution: $3x + 2 = 3x + 7$

Infinite solutions: $3x + 6 = 3x + 6$

12. Two rival dry cleaners both advertise their prices. Let x equal the number of items dry cleaned. Store A's prices are represented by the expression $15x - 2$. Store B's prices are represented by the expression $3(5x + 7)$. When do the two stores charge the same rate? Explain.

$$15x - 2 = 3(5x + 7)$$

$$15x - 2 = 15x + 7$$

They will never be the same

13. Determine if each equation has one solution, no solution, or infinitely many solutions.

Equation	How many solutions?
$4x + 5 = 4x - 10$	NO SOLUTION
$2x = 8$	ONE SOLUTION
$-6x - 5 = -6x - 5$	Infinite Solutions
$7 = 4$	No Solution
$x = -12$	One Solution
$8x = 8x$	Infinite Solutions
$2x + 3 = 5x - 4$	One solution
$-13y - 7 = -13y - 7$	Infinite Solutions

Mental Math: Solve each problem mentally and explain your reasoning.

14.

20% of 400 = 80

10% of 400 = 40 then times 2

15.

$399 + 398 =$ 797

$400 + 400 = 800$ then -3

Extra Practice: Reflex, 2-4 Lesson Quiz (pearson realize), 2-4 Math XL additional practice (pearson realize)