Name:_____ Block:___

Quiz: Review.
Chapters 1 and 2
Group A.

There are 5 questions in this quiz, each of equal value.
Standard time for the test is 15 minutes .
No calculator is allowed. (accommodation excepted)

Question 1:
Simplify.

$$3 + \{ 5x - 4[(5 - x) - (7 - 3x)] \} + 2x =$$

$3 + \{ 5x - 4[5 - x - 7 + 3x] \} + 2x =$

$-2 + 2x$

$3 + \{ 5x + 8 - 8x \} + 2x = 3 + 8 - 3x + 2x = \boxed{11 - x}$

$8 - 3x$

Question 2:

Solve for y.

$$5y - 6 = 4(3 - y)$$

$5y - 6 = 12 - 4y$

$9x = 18$

$\boxed{x = 2}$

check: $5 \cdot 2 - 6 \stackrel{?}{=} 4(3 - 2)$

$4 \stackrel{?}{=} 4$ ✓

Question 3:

Solve for x.
Present your solution in graphic way (number line) and in set notation (" $x \in$ ").

$$3(2-x) < 12 \quad \text{and} \quad 3(1+x) \leq 12$$

$2-x<4$ and $1+x \leq 4$

$-2<x$ and $x \leq 3$

$x \in (-2, 3]$

Question 4:

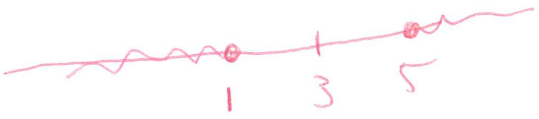
Solve for x.
Present your solution in graphic way (number line).

$$2|x-3|+3 \geq 7$$

$2|x-3| \geq 4$

$|x-3| \geq 2$

$x \leq 1$ OR $x \geq 5$



Question 5:

Choose any number. Subtract three from the number. Double the result, then add the original number. Now divide by three. Repeat this process with other numbers, until a pattern develops. By using a variable such as x in place of your number, show that the pattern does not depend on which number you choose initially.

$$\left[(x-3)\cdot 2+x\right]\frac{1}{3}=\left[3x-6\right]\frac{1}{3}=\boxed{x-2}$$

=== End ====