NAME _____ DATE _____ PERIOD _____

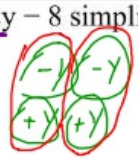
$(5x+4)+(6x+1)$

$5x+6x=11x$ $4+1=5$

Math 7 Chapter 5 Practice Test

1. The Garcia family's piñata order is 5 snickers and 4 jolly ranchers. The Thompson family's order is 6 snickers and 1 jolly rancher. How many snickers and how many jolly ranchers are needed to fill the orders?	11 SNICKERS AND 5 JOLLY RANCHERS
2. Simplify $5x + 8 + 2x - 7$. $+-7$ -7 $5x+2x=7x$ $8+(-7)=1$ $8-7=$ ¿WHAT ARE THE LIKE TERMS?	$7x+1$
3. What is the value of $9 + 3(5 - 3) - 6$? $9+3(2)-6$ $9+6-6$ $15-6$ 9 $12-2(4+1)+8$ $12-2(5)+8$ $12-10+8$ $2+8$ 10	9
4. What is the value of $5a + 7b$ if $a = 4$ and $b = 6$? $5(4)+7(6)$ $20+42$ 62 $5\times4+7\times6$	62
5. What is the value of $6x - 3y$ if $x = 4$ and $y = -1$? $6(4)-3(-1)$ $24-(-3)=24+3$ 27	27
6. What are the **next three terms** in the sequence 3, 6, 9, 12, …? GO UP BY 3 OR ADD 3 EACH TIME	15, 18, 21
7. What is the **next** term in the pattern 0.2, 0.4, 0.6, 0.8, ...? ~~0.10~~ ADDING 0.2 EACH TIME THINK OF IT AS $\frac{2}{10}, \frac{4}{10}, \frac{6}{10}, \frac{8}{10}, \frac{10}{10}$ $\frac{10}{10}=1$ $0.10<0.8$ $0.8+0.2=1.0$	1.0
8. Which expression is equivalent to $4(x + 10)$? Hint: write $(x + 10)$ four times: $(x+10)+(x+10)+(x+10)+(x+10)$ $4(x+10)$ $4(x)+4(10)$ $4x+40$ A. $4x + 40$ B. $4x + 10$ C. $4x + 20$ D. $4x - 40$	A

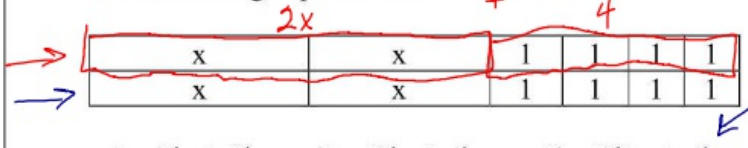
9. What is $-2y + 11 + 2y - 8$ simplified?



y	CONSTANTS
-2y	+11
+2y	-8
0y	+3

3

10. The expression $4x + 8$, shown here with tiles, can be factored into which of the following expressions?



A. $4(x + 8)$ B. $2(x + 4)$ C. $2(2x + 4)$ D. $4(2x + 2)$

C

11. Add $(10x + 2) + (9x - 4)$.

$10x + 9x = 19x$

$2 + (-4) = -2$

$2 - 4 =$

$19x + -2$ OR $19x - 2$

12. Subtract $(8x + 6) - (x - 3)$.

$(8x+6)-(1x+-3)$

$8x - 1x = 7x$

$6 - (-3) = 6 + 3 = 9$

$7x + 9$

$7x - (-9)$

13. Simplify the expression $8(3x + 2) + 3(2x + 5)$.

$8(3x) + 8(2) + 3(2x) + 3(5)$

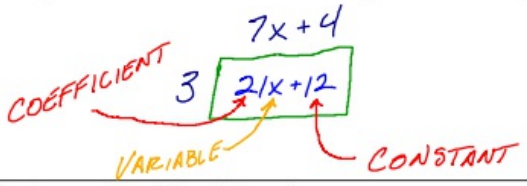
$24x + 16 + 6x + 15$

$24x + 6x = 30$

$16 + 15 = 31$

$30x + 31$

14. The **area** of a rectangular pool is $(21x + 12)$ square units. Factor $21x + 12$ to find possible dimensions of the pool. Draw a picture to support your answer.



BUILDING A BACKYARD FENCE → PERIMETER
GRASS → AREA

$3(7x+4)$

15. Factor each of the following:

a. $6x - 15$ $3(2x - 5)$

b. $7x + 20$

7: 1 · 7

20: 1 · 20, 2 · 10, 4 · 5

c. $8 + 28x$ $4(2 + 7x)$

a. $3(2x-5)$

b. CANNOT BE FACTORED

c. $4(2+7x)$