

9-9-19

Aim: SWBAT continue to identify properties and SWBAT rewrite integer expressions.

HW: Finish Packet Pages 10 - 11

Quick Quiz tomorrow (Packet Pages 1 - 5)

Do Now: Correct hw

## HOMEWORK

State the name of the property that is shown.

- |  |                               |
|--|-------------------------------|
| 1) $(x + 9) + 1 = x + (9 + 1)$                     | 1) <u>Associative, +</u>      |
| 2) $1 \cdot x = x$                                 | 2) <u>Identity, \cdot</u>     |
| 3) $(2 + 3) + 5 = 2 + (3 + 5)$                     | 3) <u>Associative, +</u>      |
| * 4) $(12 + 9) + 15 = (9 + 12) + 15$               | 4) <u>Commutative, +</u>      |
| 5) $(2 + 7) \cdot 0 = 0$                           | 5) <u>Multiplicative, 0</u>   |
| 6) $12 \cdot (7 \cdot 15) = (12 \cdot 7) \cdot 15$ | 6) <u>Associative, \cdot</u>  |
| * 7) $0 + (9 + 1) = 9 + 1$                         | 7) <u>Identity, +</u>         |
| 8) $3(4x + 9) = 12x + 27$                          | 8) <u>Distributive</u>        |
| 9) $r \cdot 1 = r$                                 | 9) <u>Identity, \cdot</u>     |
| 10) $(8 \cdot 6) \cdot 9 = 8 \cdot (6 \cdot 9)$    | 10) <u>Associative, \cdot</u> |
| 11) $106 \cdot 0 = 0$                              | 11) <u>Multiplicative, 0</u>  |
| 12) $4(a + b) = 4a + 4b$                           | 12) <u>Distributive</u>       |
| 13) $-y + y = 0$                                   | 13) <u>Inverse, +</u>         |
| * 14) $(2 + y) + 8 = 8 + (2 + y)$                  | 14) <u>Commutative, +</u>     |
| 15) $c \cdot \frac{1}{c} = 1$                      | 15) <u>Inverse, \cdot</u>     |
| * 16) $(8 \cdot 6) + 9 = (6 \cdot 8) + 9$          | 16) <u>Commutative, \cdot</u> |

**Aim: SWBAT rewrite expressions.**

- **Isolating Terms**  
The number behind the operation gets the operation as its sign.
- **When the double signs are eliminated, all problems become addition problems.**

**Eliminate the double signs and rewrite the expression. Then, isolate the terms of your new expression.**

1.  $8 + (-7)$  is the same as  $8 - 7$

2.  $10 + (-4)$  is the same as  $10 - 4$

3.  $9 + (-1)$  is the same as \_\_\_\_\_

4.  $7 + (-8)$  is the same as \_\_\_\_\_

5.  $3 + (-5)$  is the same as \_\_\_\_\_

6.  $2 + (-9)$  is the same as \_\_\_\_\_

7.  $5 + (-2)$  is the same as \_\_\_\_\_

8.  $3 + (-4)$  is the same as \_\_\_\_\_

9.  $1 + (-7)$  is the same as \_\_\_\_\_

10.  $6 + (-4)$  is the same as \_\_\_\_\_

11.  $-8 + (-7)$  is the same as  $-8 - 7$

12.  $-10 + (-4)$  is the same as  $-10 - 4$

13.  $-9 + (-1)$  is the same as \_\_\_\_\_

14.  $-7 + (-8)$  is the same as \_\_\_\_\_

15.  $-3 + (-5)$  is the same as \_\_\_\_\_

16.  $-2 + (-9)$  is the same as \_\_\_\_\_

17.  $-5 + (-2)$  is the same as \_\_\_\_\_

18.  $-3 + (-4)$  is the same as \_\_\_\_\_

19.  $-1 + (-7)$  is the same as \_\_\_\_\_

20.  $-6 + (-4)$  is the same as \_\_\_\_\_

**Adding a negative is the same as \_\_\_\_\_.**

Eliminate the double signs and rewrite the expression. Then, isolate the terms of your new expression.

21.  $6 - (-1)$  is the same as  $6 + 1$

22.  $4 - (-4)$  is the same as  $4 + 4$

23.  $7 - (-1)$  is the same as \_\_\_\_\_

24.  $2 - (-3)$  is the same as \_\_\_\_\_

25.  $9 - (-6)$  is the same as \_\_\_\_\_

26.  $1 - (-6)$  is the same as \_\_\_\_\_

27.  $8 - (-3)$  is the same as \_\_\_\_\_

28.  $12 - (-4)$  is the same as \_\_\_\_\_

29.  $3 - (-5)$  is the same as \_\_\_\_\_

30.  $2 - (-9)$  is the same as \_\_\_\_\_

31.  $-6 - (-1)$  is the same as  $-6 + 1$

32.  $-4 - (-4)$  is the same as  $-4 + 4$

33.  $-7 - (-1)$  is the same as \_\_\_\_\_

34.  $-2 - (-3)$  is the same as \_\_\_\_\_

35.  $-9 - (-6)$  is the same as \_\_\_\_\_

36.  $-1 - (-6)$  is the same as \_\_\_\_\_

37.  $-8 - (-3)$  is the same as \_\_\_\_\_

38.  $-12 - (-4)$  is the same as \_\_\_\_\_

39.  $-3 - (-5)$  is the same as \_\_\_\_\_

40.  $-2 - (-9)$  is the same as \_\_\_\_\_

Subtracting a negative is the same as \_\_\_\_\_.

### Property of Multiplication Combined with Addition

	Property	Example
Distributive	$a(b + c) = ab + ac$	$5(3 + 2) = 5 \cdot 3 + 5 \cdot 2$
	Multiplying a real number by a sum is the same as completing each multiplication separately and combining the products.	

Identify the illustrated property.

1)  $(13 + 7) + 8 = 13 + (7 + 8)$

Associative, +

2)  $0 \cdot (x + 3) = 0$

Multiplicative, 0

3)  $9 \cdot 5 = 5 \cdot 9$

Commutative, •

4)  $(62 + 3) + 0 = (62 + 3)$

Additive Identity

5)  $2(4x + 9) = 8x + 18$

Distributive

6)  $(19 + 8) + 6 = (8 + 19) + 6$

7)  $(2 \cdot 3) \cdot 7 = 2 \cdot (3 \cdot 7)$

8)  $56 \cdot 1 = 56$

9)  $2x + 6y = 2(x + 3y)$

10)  $7 \cdot \frac{1}{7} = 1$

11)  $-6 + (3 \cdot 8) = -6 + (8 \cdot 3)$

12)  $-15 + 15 = 0$