

9-10-19

Aim: SWBAT analyze integer expressions.

HW: Packet Page 15

Quick Quiz Friday (Add and Subtract Integers)

Do Now: Quick Quiz (you need a pencil and a cleared desk)



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  $9 - 1$

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

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

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

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

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

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

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

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  $-9 - 1$

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

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

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

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

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

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

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

$6 - 4$

Adding a negative is the same as subtracting a positive.



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  $7 + 1$

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

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

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

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

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

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

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

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  $-7 + 1$

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

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

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

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

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

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

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

Subtracting a negative is the same as adding a positive.

Name \_\_\_\_\_

Analyzing Integer Expressions

Date \_\_\_\_\_

Period \_\_\_\_\_

	Expression	Isolated Terms	Description of the Isolated Terms	Sign of the Answer?	Which Algorithm Decides the Number?	Final Answer
1	$-5 + 7$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$ $\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$	2
2	$-10 + 2$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 10 \\ + 2 \\ \hline \end{array}$ $\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$	-8
3	$-15 + 12$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 15 \\ + 12 \\ \hline \end{array}$ $\begin{array}{r} 15 \\ - 12 \\ \hline \end{array}$	-3
4	$-25 + 30$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 30 \\ + 25 \\ \hline \end{array}$ $\begin{array}{r} 30 \\ - 25 \\ \hline \end{array}$	5
5	$-40 + 45$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 45 \\ + 40 \\ \hline \end{array}$ $\begin{array}{r} 45 \\ - 40 \\ \hline \end{array}$	5
6	$-100 + 75$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 100 \\ + 75 \\ \hline \end{array}$ $\begin{array}{r} 100 \\ - 75 \\ \hline \end{array}$	-25

Diff. signs → Subtract and think <sup>12A</sup>  
 sign of what you have more of

Name \_\_\_\_\_

Analyzing Integer Expressions

Date \_\_\_\_\_

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	Expression	Isolated Terms	Description of the Isolated Terms	Sign of the Answer?	Which Algorithm Decides the Number?	Final Answer
7	$-5 + (-7)$ $-5 - 7$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{matrix} 7 \\ + 5 \\ \hline 12 \end{matrix}$ $\begin{matrix} 7 \\ - 5 \\ \hline \end{matrix}$	-12
8	$-10 + (-2)$ $-10 - 2$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{matrix} 10 \\ + 2 \\ \hline 12 \end{matrix}$ $\begin{matrix} 10 \\ - 2 \\ \hline \end{matrix}$	-12
9	$-15 + (-12)$ $-15 - 12$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{matrix} 15 \\ + 12 \\ \hline 27 \end{matrix}$ $\begin{matrix} 15 \\ - 12 \\ \hline \end{matrix}$	-27
10	$-25 + (-30)$ $-25 - 30$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{matrix} 30 \\ + 25 \\ \hline 55 \end{matrix}$ $\begin{matrix} 30 \\ - 25 \\ \hline \end{matrix}$	-55
11	$-40 + (-45)$ $-40 - 45$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{matrix} 45 \\ + 40 \\ \hline 85 \end{matrix}$ $\begin{matrix} 45 \\ - 40 \\ \hline \end{matrix}$	-85
12	$-100 + (-75)$ $-100 - 75$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{matrix} 100 \\ + 75 \\ \hline 175 \end{matrix}$ $\begin{matrix} 100 \\ - 75 \\ \hline \end{matrix}$	-175

Same Signs → Add and Keep the sign they share <sup>12B</sup>

Name \_\_\_\_\_

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Period \_\_\_\_\_

	Expression	Isolated Terms	Description of the Isolated Terms	Sign of the Answer?	Which Algorithm Decides the Number?	Final Answer
13	$5 + (-7)$ $5 + 7$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 7 \\ + 5 \\ \hline 12 \\ - 7 \\ \hline -5 \end{array}$	12
14	$10 + (-2)$ $10 + 2$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 10 \\ + 2 \\ \hline 12 \\ - 2 \\ \hline \end{array}$	12
15	$15 + (-2)$ $15 + 12$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 15 \\ + 12 \\ \hline 27 \\ - 12 \\ \hline \end{array}$	27
16	$25 + (-30)$ $25 + 30$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 30 \\ + 25 \\ \hline 55 \\ - 25 \\ \hline \end{array}$	55
17	$40 + (-45)$ $40 + 45$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 45 \\ + 40 \\ \hline 85 \\ - 40 \\ \hline \end{array}$	85
18	$100 + (-75)$ $100 + 75$	Same Signs or Different Signs	All + All - More + More -	+ or -	$\begin{array}{r} 100 \\ + 75 \\ \hline 175 \\ - 75 \\ \hline \end{array}$	175

Same Signs → Add and Keep the sign they share

Name \_\_\_\_\_

Analyzing Integer Expressions

Date \_\_\_\_\_  
Period \_\_\_\_\_

	Expression	Isolated Terms	Description of the Isolated Terms	Sign of the Answer?	Which Algorithm Decides the Number?	Final Answer
19	5 - 7	Same Signs or Different Signs	All + All - More + More -	+ or -	7 + 5 7 - 5 2	-2
20	10 - 2	Same Signs or Different Signs	All + All - More + More -	+ or -	10 + 2 10 - 2 8	8
21	15 - 12	Same Signs or Different Signs	All + All - More + More -	+ or -	15 + 12 15 - 12 3	3
22	25 - 30	Same Signs or Different Signs	All + All - More + More -	+ or -	30 + 25 30 - 25 5	-5
23	40 - 45	Same Signs or Different Signs	All + All - More + More -	+ or -	45 + 40 45 - 40 5	-5
24	100 - 75	Same Signs or Different Signs	All + All - More + More -	+ or -	100 + 75 100 - 75 25	25

Diff. signs → subtract and think  
sign of what you have more of

## HOMEWORK

Evaluate. ·

	A	B	C
1	$-2 + 2$	$-4 + 0$	$-5 + 5$
2	$-2 + 5$	$-5 + 2$	$-2 + -5$
3	$-2 + 3$	$2 + -3$	$-2 + -3$
4	$-6 + 1$	$-1 + 6$	$-6 + -1$
5	$-11 + 32$	$8 + -8$	$-78 - 15$
6	$-25 + 20$	$-2 - 7$	$10 - 13$
7	$18 - -11$	$25 - 40$	$-40 - -35$