Warm up - Complete on the back of page 8

Circle all of the integers.

12 $|-12|$ -0.25 $\frac{14}{2}$ 7 $-\sqrt{25}$ -5 $1\frac{2}{3}$

Order the integers from least to greatest.

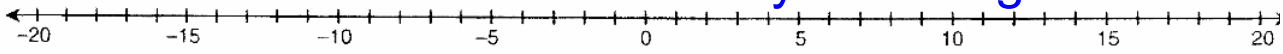
42 $\frac{16}{2}$ =8 -12 $|-9|$ =9 $-\frac{28}{7}$ -4

-12 $-\frac{28}{7}$ $\frac{16}{2}$ $|-9|$ 42

Why Do Flies Always Bring Their Stopwatches to Parties?

Write an integer for each exercise. Find the point on the number line that corresponds to the integer. Write the letter of the exercise above the number line at that point.

Because flies time when they're having fun



Write an integer for each situation.

- (E) 3 units to the left of 0
- (S) the opposite of 8
- (N) 15 ft above sea level
- (E) a gain of 6 yd
- (I) 5° below zero
- (N) a deposit of $20
- (E) 14 steps backward
- (T) four seconds after liftoff
- (I) a loss of ten pounds
- (W) one floor down
- (E) 19 m below sea level
- (H) the opposite of −11

Write an integer for each expression.

- (A) $-(17)$ -17
- (I) $-(-14)$ 14
- (E) $|-1|$ 1
- (R) $|8|$ 8
- (U) $-n$ if $n = 16$ -16
- (G) $-n$ if $n = -16$ 16
- (B) $-(12 + 8)$ -20
- (H) $|16 - 11|$ 5
- (E) $-|9|$ -9
- (S) $-|-15|$ -15
- (A) $|x|$ if $x = -12$ 12
- (F) $-|x|$ if $x = -12$ -12

$|-12| = 12$

$-|-12|$

-12

Write an integer for each question.

- (N) Which is greater, 2 or −13?
- (T) Which is greater, −7 or −6?
- (E) Which is greater, −11 or 9?
- (C) Which is less, −18 or −4?
- (U) Which is less, $|-20|$ or 19?
- (H) Which is less, 0 or $-(-3)$?

The table below gives the starting point, direction, and length of arrows drawn on the number line. Complete the table by writing the endpoint of each arrow.

Starting Point	Direction, Length	Endpoint	
0	negative, 4		M
−2	positive, 9		Y
−2	negative, 9		L
5	positive 13		E
−10	positive, 23		V

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NAME _____ DATE _____ PERIOD _____

Multi-Part Lesson 3 PART 1

Homework Practice

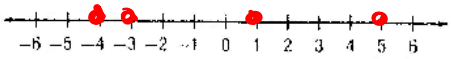
Integers and Absolute Value

Write an integer for each situation.

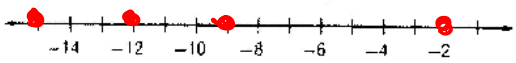
1. a drop of 200 feet −200
2. an expansion of 3 cubic meters 3
3. earn 10 points 10
4. reduce by 8 inches −8

Graph each set of integers on a number line.

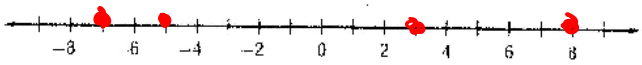
5. {−4, −3, 1, 5}



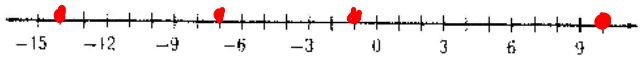
6. {−15, −12, −9, −2}



7. {8, 3, −7, −5}



8. {−14, −7, 10, −1}



Evaluate each expression.

9. |31| + |−5| 36 (31 + 5)
10. |−16| − |4| 12 (16 − 4)
11. |−28| − |−1| 27 (28 − 1)
12. |11 − 2| 9 (11 − 2)
13. |44| + |−34| 78 (44 + 34)
14. |−101| − |−1| 100 (101 − 1)
15. **BUSINESS** Ms. Solorio's small business had a profit of $460 on Monday. Write an integer to represent this profit. 460
16. **CAVING** The end of a cave is 380 meters below the surface of the earth. Write an integer to represent this depth. −380
17. **TEMPERATURES** The low temperatures for three consecutive days were −5°F, 3°F, and 4°F. Which temperature has the greatest absolute value? −5°F
18. **ELEVATIONS** The lowest elevation in New Orleans, Louisiana, is −8 feet. The lowest elevation in Long Beach, California, is −7 feet. Which city has the lower elevation? New Orleans

Go Online! *For more practice, go to* www.connected.mcgraw-hill.com.

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$\sqrt{24}$

$4^2 = 16$ $5^2 = 25$

4,5

$\sqrt{208}$

$14^2 = 196$

$15^2 = 225$

14,15

$^2 15$

$\times 15$

75

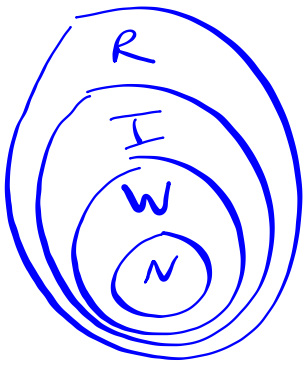
15

225

$5, 0, -33, 3^2$

$3 \cdot 3 = 9$

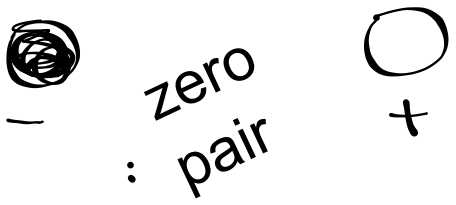
I



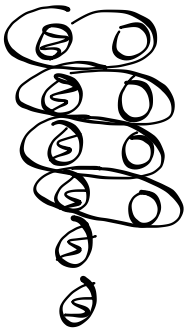
Use open and closed circles to model adding integers.

P. 11

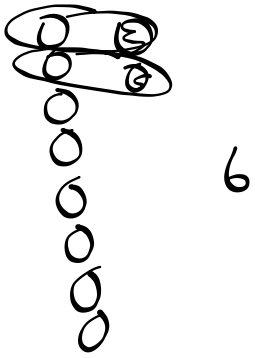
negative positive



Ex: -6 + 4



Ex: 8 + -2

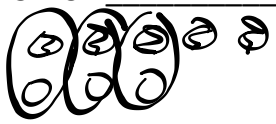


Use open and closed circles to solve each problem. In the box draw a picture of your solution.

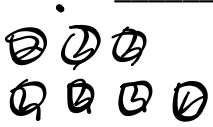
6 + 2 = 8

- +

−5 + 3 = −2

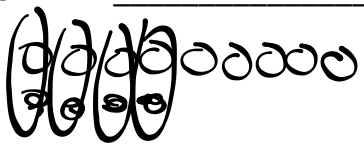


−3 + −4 = −7



−2 + 5 = 3

9 + −4 = 5

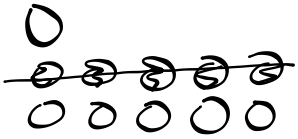


3 + −7 = −4

Use open and closed circles to solve each problem. In the box draw a picture of your solution.

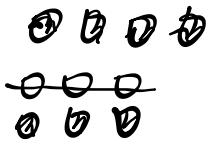
8 − 2 = 6

1 − (−5) = 6

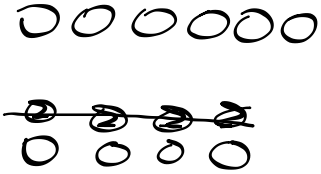


−7 − (−3) = −4

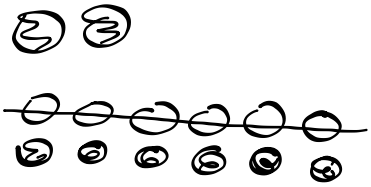
−4 − 3 = −7



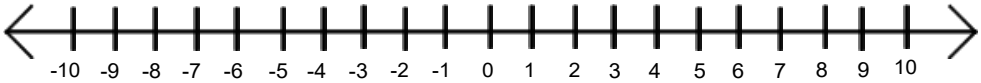
6 − (−4) = 10

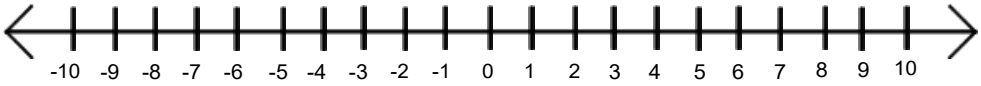


−2 − 6 = −8

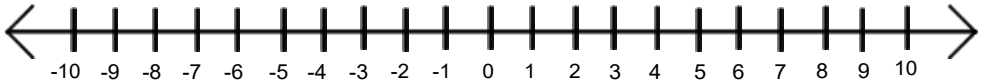


What patterns did you notice?


-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10


-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10


-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

Foldable with Adding Integer Rules

Cutside of foldable

Adding Integers with Same sign	Adding Integers with Different signs	Danger Danger
$-5-2$	$-8+10$	$-(-)$ $4-(-2)$

First Flap

1. Circle each number with its sign
2. Add
3. Keep Sign

Examples:

$5 + 2 = 7$

$-5 - 3 = -8$

$-7 - 8 = -15$

Second Flap

1. Circle the numbers with its sign
2. Subtract
3. Keep the sign of the larger number

Examples:

$8 - 5 = +3$

$-13 + 10 = -3$

$-5 + 6 = 1$

Third flap

If there are two negatives together, they cancel and become positive;
the opposite of negative is positive.

Examples:

$3 - (-5) = 8$

$5 - (-10) = 15$

$3 + 5$

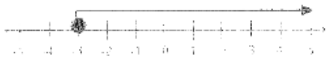
$5 + 10$

Take Integer Quiz

When finished work on add/subtract classwork

Incomplete classwork will become homework

Name:	Class:
Topic:	Date:

Main Ideas/Questions	Notes
What are integers?	Whole numbers and their opposties.
The number Line	*Label the number line to show the integers:* -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8
Adding Integers	To ADD means to move Right on the number line! *Visual Example:* -3 + 8 = _____  *More Examples:* 1. 1 + 8 = _____ 3. -11 + 9 = _____ 2. -2 + 6 = _____ 4. -7 + 7 = _____
Subtracting Integers	To SUBTRACT means to move left on the number line! *Visual Example:* -1 – 3 = _____ *More Examples:* 1. 9 – 4 = _____ 3. -2 – 5 = _____ 2. 4 – 6 = _____ 4. -3 – 3 = _____
Watch out for double signs!	1. 2 + (-6) = _____ 5. 4 – (-2) = _____ 2. -7 + (-1) = _____ 6. -12 – (-3) = _____ 3. 10 + (-2) = _____ 7. -9 – (-7) = _____ 4. 9 + (-4) = _____ 8. 0 – (-10) = _____

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Homework

ACTIVITY 14 Name _____

–12	12	9	–20	–6	4	–15	–12	12	9
–6	1	4	–15	–2	–4	–28	–6	–1	4
–9	7	–7	12	–6	4	12	–7	7	6
10	–20	–6	–15	2	2	–28	4	10	–10
12	0	12	3	6	–9	3	12	0	12
7	–3	7	3	9	–12	3	7	–3	7
–10	1	–6	–20	2	2	–1	4	–15	–28
–12	12	–7	7	–6	4	7	–7	12	9
–6	10	4	–10	–2	–4	–20	–6	–15	4
–9	7	6	1	–6	4	–28	–9	7	6

Add and subtract.

- (–9) + (–3)
- 3 – (–6)
- 8 + (–2)
- (–5) + (–4)
- 6 – 13
- (–4) – (–11)
- (–13) – (–7)
- (–6) + 18
- (–12) – (–16)
- (–2) + 5 – 6
- (–3) – 4 + 5
- (–9) – (–4) + 5
- 6 – 8 – 2
- (–7) + 1 – (–9)
- 6 + (–9) – (–5)

IF YOU HAVE FINISHED YOUR CLASSWORK, THEN:

ixl.com

username: studentID#@vbschools

password: first two letters of last name studentID#

Ex: 12345@vbschools

ba12345

select math

select 7th grade

Complete the lessons in this order:

Integers add and subtract C.2, C.3, C.1