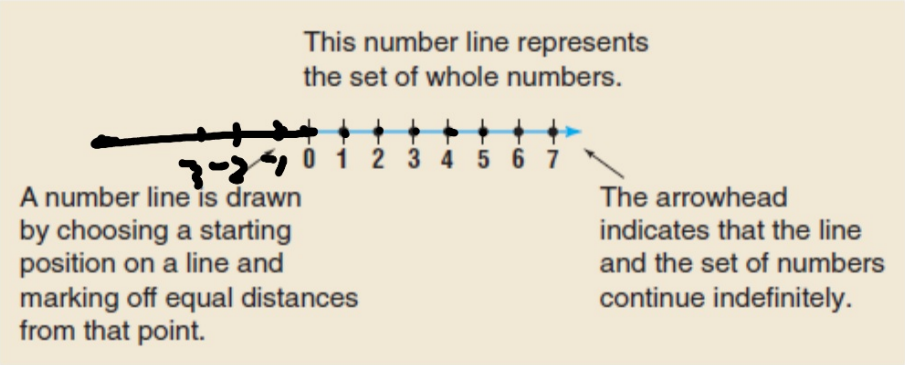
Applied Algebra 2.1

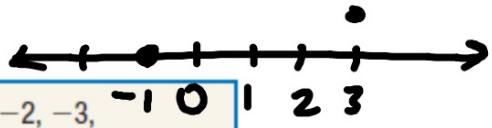
Graph integers on a number line
Compare integers
Order integers

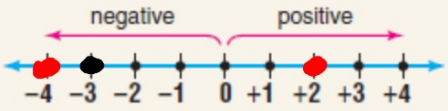
$-\frac{1}{2}$ 3.5 −12

number line
positive number
zero
negative number
integer
whole number
natural number
graph
coordinate
absolute value
order of operations

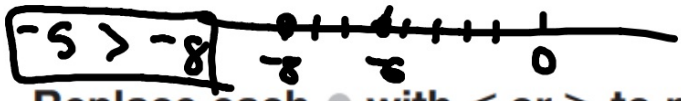


activity: cards compare



Integers		
	Words:	Integers are the negative numbers $-1, -2, -3, -4, \ldots$ and whole numbers $0, 1, 2, 3, 4, \ldots$.
	Symbols:	$\{\ldots, -4, -3, -2, -1, 0, 1, 2, 3, 4, \ldots\}$
	Model:	

Zero is neither negative nor positive.



Replace each ● with < or > to make a true sentence. *(Examples 3 & 4)*

12. $-8 \bullet -5$ 13. $-4 \bullet 2$ 14. $9 \bullet -7$

2 > -4

Evaluate each expression. *(Examples 6 & 7)*

15. $|-8| + |-2|$

8 + 2 = 10

16. $|-7| - |4|$

7 - 4 = 3

17. **Meteorology** The table gives the record low temperatures for each month at the Grand Canyon Airport in Arizona. Order the temperatures from least to greatest. *(Example 5)*

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temperature (°F)	−22	−17	−7	9	10	26	35	35	22	13	−1	−14

Source: *The Weather Almanac*

−22, −17, −14, −7, −1, 9, 10, 13

22, 26, 35, 35

Replace each ● with < or > to make a true sentence.

30. $4 \bullet -4$ $4 > -4$

31. $0 \bullet -2$ $0 > -2$

32. $-2 \bullet -1$ $-2 < -1$

33. $2 \bullet -3$ $2 > -3$

34. $-10 \bullet 1$ $-10 < 1$

35. $-15 \bullet -10$

36. $-5 \bullet |-5|$ $-5 < 5$

37. $|4| \bullet -4$ $4 > -4$

38. $|-6| \bullet |-3|$ $6 > 3$

$|10| = 0$

Evaluate each expression.

$5 - 3 = 2$

39. $|-6| = 6$

40. $|10| = 10$

41. $|-5| - |3|$

42. $|-7| + |-2|$

$7 + 2$

9

43. $|14| - |-5|$

$14 - 5$

9

44. $|-13| + |-17|$

$13 + 17$

30