

Name: Key

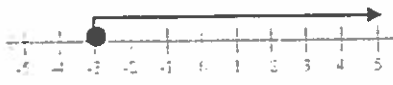


Date: 8/18/17

Topic:

Class:

Main Ideas/Questions	Notes/Examples															
What are Integers?	All whole numbers, positive, negative and zero															
The Number Line																
Writing Integers	Directions: Write an integer for each situation.															
	<table border="0"> <tr> <td>1. a 3-yard gain</td> <td><u>3</u></td> <td>2. 8 degrees below normal</td> <td><u>-8</u></td> </tr> <tr> <td>3. a \$75 deposit</td> <td><u>75</u></td> <td>4. a 21-pound loss</td> <td><u>-21</u></td> </tr> <tr> <td>5. 5 miles above sea level</td> <td><u>5</u></td> <td>6. a \$40 deduction</td> <td><u>-40</u></td> </tr> <tr> <td>7. 2 strokes under par</td> <td><u>-2</u></td> <td>8. a \$15 surcharge</td> <td><u>-15</u></td> </tr> </table>	1. a 3-yard gain	<u>3</u>	2. 8 degrees below normal	<u>-8</u>	3. a \$75 deposit	<u>75</u>	4. a 21-pound loss	<u>-21</u>	5. 5 miles above sea level	<u>5</u>	6. a \$40 deduction	<u>-40</u>	7. 2 strokes under par	<u>-2</u>	8. a \$15 surcharge
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Comparing & Ordering Integers	Directions: Place a < or > in the circle to complete each statement.															
	<table border="0"> <tr> <td>9. $-12 < 5$</td> <td>10. $-7 > -23$</td> <td>11. $1 > -6$</td> <td>12. $-18 < -15$</td> </tr> <tr> <td>13. $20 > -25$</td> <td>14. $-13 < 0$</td> <td>15. $-36 > -40$</td> <td>16. $-29 < -28$</td> </tr> </table>	9. $-12 < 5$	10. $-7 > -23$	11. $1 > -6$	12. $-18 < -15$	13. $20 > -25$	14. $-13 < 0$	15. $-36 > -40$	16. $-29 < -28$							
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Directions: Order each set of integers from least to greatest.																
<table border="0"> <tr> <td>17. $\{4, 0, -9, 2, -8, -1, 13\}$</td> <td><u>$-9, -8, -1, 0, 2, 4, 13$</u></td> </tr> <tr> <td>18. $\{-27, 21, -24, 16, -11, -8\}$</td> <td><u>$-27, -24, -11, -8, 16, 21$</u></td> </tr> <tr> <td>19. $\{12, -4, 9, -10, -18, 15\}$</td> <td><u>$-18, -10, -4, 9, 12, 15$</u></td> </tr> <tr> <td>20. $\{-52, -65, 37, -33, 48, -31\}$</td> <td><u>$-65, -52, -33, -31, 37, 48$</u></td> </tr> </table>	17. $\{4, 0, -9, 2, -8, -1, 13\}$	<u>$-9, -8, -1, 0, 2, 4, 13$</u>	18. $\{-27, 21, -24, 16, -11, -8\}$	<u>$-27, -24, -11, -8, 16, 21$</u>	19. $\{12, -4, 9, -10, -18, 15\}$	<u>$-18, -10, -4, 9, 12, 15$</u>	20. $\{-52, -65, 37, -33, 48, -31\}$	<u>$-65, -52, -33, -31, 37, 48$</u>								
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Absolute Value	the distance a # is from zero															
	Notation: $ x $ ← Read as: "The absolute value of x."															
	Directions: Evaluate each expression.															
	<table border="0"> <tr> <td>21. $7 = 7$</td> <td>22. $-20 = 20$</td> <td>23. $-4 = 4$</td> </tr> <tr> <td>24. $18 = 18$</td> <td>25. $35 = 35$</td> <td>26. $-11 = 11$</td> </tr> </table>	21. $ 7 = 7$	22. $ -20 = 20$	23. $ -4 = 4$	24. $ 18 = 18$	25. $ 35 = 35$	26. $ -11 = 11$									
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Main Ideas/Questions	Notes/Examples												
<h3>Adding Integers</h3>	<ul style="list-style-type: none"> To ADD means to move <u>right</u> on the number line! <p>Visual Example: $-3 + 8 = \underline{5}$</p>  <p>More Examples:</p> <table> <tr> <td>1. $1 + 8 = \underline{9}$</td> <td>2. $-11 + 9 = \underline{-2}$</td> </tr> <tr> <td>3. $-2 + 6 = \underline{4}$</td> <td>4. $-7 + 7 = \underline{0}$</td> </tr> <tr> <td>5. $-21 + 3 = \underline{-18}$</td> <td>6. $-9 + 13 = \underline{4}$</td> </tr> </table>	1. $1 + 8 = \underline{9}$	2. $-11 + 9 = \underline{-2}$	3. $-2 + 6 = \underline{4}$	4. $-7 + 7 = \underline{0}$	5. $-21 + 3 = \underline{-18}$	6. $-9 + 13 = \underline{4}$						
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<h3>Subtracting Integers</h3>	<ul style="list-style-type: none"> To SUBTRACT means to move <u>left</u> on the number line! <p>Visual Example: $-1 - 3 = \underline{-4}$</p>  <p>More Examples:</p> <table> <tr> <td>7. $9 - 4 = \underline{5}$</td> <td>8. $-2 - 5 = \underline{-7}$</td> </tr> <tr> <td>9. $4 - 6 = \underline{-2}$</td> <td>10. $-3 - 3 = \underline{-6}$</td> </tr> <tr> <td>11. $-28 - 8 = \underline{-36}$</td> <td>12. $-5 - 11 = \underline{-16}$</td> </tr> </table>	7. $9 - 4 = \underline{5}$	8. $-2 - 5 = \underline{-7}$	9. $4 - 6 = \underline{-2}$	10. $-3 - 3 = \underline{-6}$	11. $-28 - 8 = \underline{-36}$	12. $-5 - 11 = \underline{-16}$						
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 <h3>Watch out for Double Signs!</h3>	<div style="border: 1px solid black; padding: 10px; margin: 10px;"> <p>Rewrite "+(-)" as <u>—</u>.</p> <p>Rewrite "-(-)" as <u>+</u>.</p> </div> <p>Examples:</p> <table> <tr> <td>13. $2 + (-6) = \underline{-4}$</td> <td>14. $-7 + (-1) = \underline{-8}$</td> </tr> <tr> <td>15. $-20 + (-5) = \underline{-25}$</td> <td>16. $18 + (-2) = \underline{16}$</td> </tr> <tr> <td>17. $-15 + (-14) = \underline{-29}$</td> <td>18. $1 + (-7) = \underline{-6}$</td> </tr> <tr> <td>19. $9 - (-2) = \underline{11}$</td> <td>20. $-12 + (-3) = \underline{-9}$</td> </tr> <tr> <td>21. $0 - (-10) = \underline{10}$</td> <td>22. $-6 + (-19) = \underline{-13}$</td> </tr> <tr> <td>23. $-2 - (-23) = \underline{21}$</td> <td>24. $21 - (-7) = \underline{28}$</td> </tr> </table>	13. $2 + (-6) = \underline{-4}$	14. $-7 + (-1) = \underline{-8}$	15. $-20 + (-5) = \underline{-25}$	16. $18 + (-2) = \underline{16}$	17. $-15 + (-14) = \underline{-29}$	18. $1 + (-7) = \underline{-6}$	19. $9 - (-2) = \underline{11}$	20. $-12 + (-3) = \underline{-9}$	21. $0 - (-10) = \underline{10}$	22. $-6 + (-19) = \underline{-13}$	23. $-2 - (-23) = \underline{21}$	24. $21 - (-7) = \underline{28}$
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<p>Absolute Value Examples</p>	<p>25. $-13 + 15 = \underline{28}$</p> <p>27. $21 - 8 = \underline{13}$</p> <p>29. $-3 + -5 = \underline{8}$</p> <p>31. $-7 - 16 = \underline{23}$</p> <p>33. $-14 - (-1) = \underline{13}$</p>	<p>26. $23 + 15 = \underline{38}$</p> <p>28. $24 - -17 = \underline{7}$</p> <p>30. $-11 - -6 = \underline{5}$ $11 - 6$</p> <p>32. $4 - -4 = \underline{0}$ $4 - 4$</p> <p>34. $5 - (-8) = \underline{13}$</p>
<p>Rules for Multiplying & Dividing Integers</p>	<p>Multiply or divide as you normally would, but use the following rules for the final sign:</p> <ul style="list-style-type: none"> • Two Positives (+ and +) make a <u>+</u>. • Two Negatives (- and -) make a <u>+</u>. • A Positive and a Negative (+ and -) make a <u>-</u>. 	
<p>Multiplying Integers</p>	<p>35. $-9 \times -3 = \underline{27}$</p> <p>37. $8(-9) = \underline{-72}$</p> <p>39. $-4(-7) = \underline{28}$</p> <p>41. $11 \cdot -2 = \underline{-22}$</p> <p>43. $-5 \cdot 9 = \underline{-45}$</p>	<p>36. $-4 \times -11 = \underline{44}$</p> <p>38. $-6(10) = \underline{-60}$</p> <p>40. $6(8) = \underline{48}$</p> <p>42. $-8 \cdot -3 = \underline{24}$</p> <p>44. $16 \cdot -2 = \underline{-32}$</p>
<p>Dividing Integers</p>	<p>45. $63 \div 7 = \underline{9}$</p> <p>47. $-9 \div -3 = \underline{3}$</p> <p>49. $90/10 = \underline{9}$</p> <p>51. $-8/8 = \underline{-1}$</p> <p>53. $-42/7 = \underline{-6}$</p>	<p>46. $-18 \div -9 = \underline{2}$</p> <p>48. $-20 \div 2 = \underline{-10}$</p> <p>50. $56/-8 = \underline{-7}$</p> <p>52. $-21/-3 = \underline{7}$</p> <p>54. $12/-1 = \underline{-12}$</p>
<p>Summary: _____</p> <p>_____</p> <p>_____</p> <p>_____</p>		