

<b>Integer Rules</b>											
<b>Adding Integers</b>											
<p><u>S</u>ame Signs = <u>S</u>um add and keep the sign <math>5 + 4 = 9</math> <math>-5 + (-4) = -9</math></p>	<p><u>D</u>ifferent Signs = <u>D</u>ifference subtract and keep the sign of the number with the larger absolute value <math>5 + (-4) = 1</math> <math>-5 + 4 = -1</math></p>										
<b>Subtracting Integers</b>											
<p>1. Keep, Change, Opposite 2. Follow the addition rules</p>	<p><math>4 - (-9)</math> <math>4 + 9 = 13</math></p>	<p><math>4 - 9</math> <math>4 + (-9) = -5</math></p>									
<b>Multiplying and Dividing Integers</b>											
<p>Same Signs = Positive <math>7 \cdot 2 = 14</math> <math>-12 \div (-6) = 2</math></p>	<p>Different Signs = Negative <math>-7 \cdot 2 = -14</math> <math>12 \div (-6) = -2</math></p>	<table style="border-collapse: collapse; margin: auto;"> <tr> <td style="border: 1px solid black; padding: 5px;">+</td> <td style="border: 1px solid black; padding: 5px;">-</td> <td style="border: 1px solid black; padding: 5px;">-</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">-</td> <td style="border: 1px solid black; padding: 5px;">+</td> <td style="border: 1px solid black; padding: 5px;">-</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">-</td> <td style="border: 1px solid black; padding: 5px;">-</td> <td style="border: 1px solid black; padding: 5px;">+</td> </tr> </table>	+	-	-	-	+	-	-	-	+
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**Practice Problem Set**

Perform the indicated operation.

- |                              |                            |                             |
|------------------------------|----------------------------|-----------------------------|
| 1. $-5 - 2 =$ _____          | 2. $-9 \times 4 =$ _____   | 3. $12 + (-3) =$ _____      |
| 4. $0 - 8 =$ _____           | 5. $-15 + 6 =$ _____       | 6. $(-9)^2 =$ _____         |
| 7. $(-10)(-1) =$ _____       | 8. $18 \div -2 =$ _____    | 9. $11 + (-11) =$ _____     |
| 10. $-16 - 3 =$ _____        | 11. $(-1)^{18} =$ _____    | 12. $-100 \div -10 =$ _____ |
| 13. $\frac{-35}{-5} =$ _____ | 14. $-19 + 2 =$ _____      | 15. $\frac{-49}{7} =$ _____ |
| 16. $-9 - 10 =$ _____        | 17. $-8 \times -9 =$ _____ | 18. $(-1)^{13} =$ _____     |
| 19. $0 - (-30) =$ _____      | 20. $-6 + (-7) =$ _____    | 21. $-4 - 4 =$ _____        |



1. Choose any two negative integers. Is the sum of the integers greater or less than the value of either of the integers? Will this be true no matter what two negative integers you choose? Explain.
2. The sum of two integers with different signs is 8. Give two possible integers that satisfy this situation.
3. Sherri and Darren are playing a board game. The table shows the number of points each player scores in 5 rounds. If the player with the greater total score wins, who is the winner? Justify your response.

Round	Sherri's Points	Darren's Points
1	35	-10
2	-20	15
3	-5	35
4	25	5
5	5	-15

4. Which expression below is *not* equivalent to  $-6 - 4$ ?  
A.  $-6 + (-4)$       B.  $-4 + (-6)$       C.  $-4 - 6$       D.  $4 - (-6)$
5. The quotient of two negative integers results in an integer. How does the value of the quotient compare to the value of the original two integers? Explain.
6. Two integers exist represented by  $a$  and  $b$ . Colleen divided integer  $a$  by  $-3$  and got  $8$ . Then she divided  $8$  by integer  $b$  and got  $-4$ . Find the product of integer  $a$  and  $b$ .