Summer Middle School 8th Grade Algebra and Honors Algebra I Assignment

Operations with integers will be used throughout the year in your 8th grade math course. It is important to know the rules for adding, subtracting, multiplying and dividing integers and to be able to apply them.

Please review the rules for addition, subtraction, multiplication and division of integers on the first two pages. Then print and complete the following assignments. All assignments should be completed **without** the use of a calculator. This is to help you make certain that you remember the rules.

Assignments:

1. Integer Addition Worksheet
2. Subtracting Integers Worksheet
3. Adding and Subtracting Integers Worksheet
4. Multiplying Integers Worksheet
5. Dividing Integers Worksheet
6. Multiplying and Dividing Integers Worksheet

Bring all of these assignments to turn in on the first day of class, August 13.

Integer Operations Review

Review the following rules for adding, subtracting, multiplying and dividing integers.

Adding Integers

Same Signs:
1. Add the digits.
2. Keep the sign of both numbers.

Different Signs:
1. Subtract the digits.
2. Keep the sign of the larger digit.

Examples:

-6 + (-4) = -10 -3 + (-9) = -12 9 + (-2) = 7 -5 + 11 = 6

-8 + 3 = -5 6 + (-16) = -10

Subtracting Integers

To subtract an integer, you add its opposite.

We can use this to help us remember:
KSC - Keep **S**witch **C**hange

Keep the first number as is
Switch the sign of the second number
Change subtraction to addition

Once you have done this, follow the addition rules for same sign or different signs.

Examples:

-2 - 10	-3 - (-5)	5 - 11	4 - (-5)	-12 - (-3)
⇓	⇓	⇓	⇓	⇓
-2 + (-10)	-3 + 5	5 + (-11)	4 + 5	-12 + 3
-12	2	-6	9	-9

Multiplying and Dividing Integers

Multiplication and division of integers share the same rules.

Both Negative

1. Multiply or divide the digits as usual.
2. The answer is positive.

One Negative/One Positive

1. Multiply or divide the digits as usual.
2. The answer is negative.

Examples:

$-4(-5) = 20$ $-20 \div 2 = -10$ $-3(5) = -15$ $-16 \div (-8) = 2$

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Integer Addition.

a. -8 + (-6) =

b. 10 + 4 =

c. -6 + 5 =

d. 3 + (-9) =

e. 5 + 0 =

f. -3 + (-2) =

g. -5 + 5 =

h. 9 + (-4) =

i. -8 + 1 =

j. -6 + 2 =

k. -7 + 9 =

l. 3 + (-4) =

m. -10 + 8 =

n. 3 + 8 =

o. 6 + 0 =

p. -2 + 9 =

q. 5 + (-2) =

r. 2 + 9 =

s. -7 + (-5) =

t. -10 + 8 =

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Subtracting integers.

a. -10 - 1 =

b. 5 - (-7) =

c. -6 - 5 =

d. 9 - (-2) =

e. 7 - (-1) =

f. 5 - (-2) =

g. -3 - (-2) =

h. -5 - 7 =

i. 3 - 0 =

j. 8 - 1 =

k. -10 - (-7) =

l. 1 - (-9) =

m. -6 - (-10) =

n. 3 - 6 =

o. 8 - (-1) =

p. -3 - 8 =

q. 10 - (-8) =

r. -9 - (-7) =

s. 8 - (-10) =

t. 2 - 4 =

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Adding and Subtracting integers.

a. 0 - (-9) =

b. 5 - 5 =

c. -7 + 4 =

d. -10 + 5 =

e. 0 - (-7) =

f. -7 - 1 =

g. 9 - 1 =

h. -6 + (-9) =

i. -10 - 9 =

j. 2 - (-1) =

k. 4 - 9 =

l. -4 + 3 =

m. -6 + 6 =

n. -2 - 7 =

o. 7 - (-4) =

p. 7 - (-1) =

q. -3 + (-2) =

r. -8 + 2 =

s. -2 + 3 =

t. -3 + (-6) =

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Multiplying integers.

a. $-10 \times (-10) =$

b. $-7 \times 8 =$

c. $10 \times 6 =$

d. $8 \times (-7) =$

e. $3 \times 2 =$

f. $-2 \times 6 =$

g. $-9 \times 1 =$

h. $10 \times (-4) =$

i. $-9 \times 3 =$

j. $-6 \times 3 =$

k. $-9 \times 0 =$

l. $-7 \times (-8) =$

m. $10 \times (-8) =$

n. $-8 \times 6 =$

o. $-3 \times (-8) =$

p. $-7 \times (-3) =$

q. $-7 \times (-4) =$

r. $-5 \times (-7) =$

s. $-8 \times (-8) =$

t. $-4 \times 5 =$

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Dividing integers.

a. $-21 \div 7 =$

b. $-60 \div 10 =$

c. $-8 \div 4 =$

d. $-9 \div 9 =$

e. $48 \div 6 =$

f. $-72 \div 8 =$

g. $4 \div 2 =$

h. $-30 \div 3 =$

i. $50 \div 10 =$

j. $48 \div (-6) =$

k. $-42 \div (-7) =$

l. $-90 \div (-10) =$

m. $21 \div (-3) =$

n. $35 \div 5 =$

o. $24 \div 3 =$

p. $-32 \div 4 =$

q. $-63 \div (-9) =$

r. $-9 \div 1 =$

s. $-10 \div (-10) =$

t. $6 \div (-3) =$

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Multiplying and Dividing integers.

a. $16 \div (-8) =$

b. $-36 \div 6 =$

c. $-1 \times (-8) =$

d. $42 \div 6 =$

e. $6 \times (-3) =$

f. $-7 \div (-1) =$

g. $-48 \div 6 =$

h. $3 \times (-9) =$

i. $1 \times 1 =$

j. $10 \times 9 =$

k. $2 \times (-4) =$

l. $-1 \times 1 =$

m. $-3 \times 10 =$

n. $5 \times 6 =$

o. $1 \times 2 =$

p. $-8 \div (-2) =$

q. $4 \div 1 =$

r. $35 \div (-7) =$

s. $-3 \times 5 =$

t. $4 \times 5 =$