Math Practice Sheets

Counting Numbers (Z) Part II

Examples

Practice Questions

Extra Challenge Unit

Student Name

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Integer Multiplication

Example

Multiplying with integers is similar to multiplying with whole numbers. i.e.

Numbers	5.4	-5.4	5(-4)	-5(-4)
Words	5 groups of 4	The opposite of 5 groups of 4	5 groups of -4	The opposite of 5 groups of (-4)
Addition	4+4+4+4+4	-(4+4+4+4+4)	(-4)+(-4)+(-4)+(-4)+(-4)	-[(-4)+(-4)+(-4)+(-4)+(-4)]
Product	20	-20	-20	20

The above table tells us how we can choose the correct sign for the answer. Use the following rules for multiplication of integers.

  ➤ To multiply two integers of the same sign, we take the positive sign for the answer.
  ➤ To multiply two integers of different signs, we take the negative sign for the answer.

In symbols, if a and b are natural numbers, we write as follows.

$a \times b = a{\times}b \quad -a \times (-b) = a{\times}b \quad a \times (-b) = -(a{\times}b) \quad -a \times b = -(a{\times}b)$

Note that the products a × 0, -a × 0, 0 × a, and 0 × (-a) are all zero.

Exercise

1. Find the product of each of the following.

a) 3 × (-7)

b) -8 × (-5)

c) 9 × 6

d) -4 × 11

e) 0 × (-2)

f) 5 × (-9)

g) -7 × (-7)

h) -12 × 0