

Rules for adding, subtracting, multiplying and dividing integers

Adding integers with the same sign (positive plus positive/negative plus negative)

1. Add the numbers as normal
2. Take the sign within the problem and place it in the answer

Example: $-3 + -7 = -10$
 $2 + 9 = 11$

Adding integers with different signs (positive plus a negative/negative plus a positive)

1. Take the absolute value of each number
2. Subtract
3. Identify the largest absolute value number
4. Take the original sign of that number and apply it to the answer

Example: $-7 + 5$
Absolute value of -7 is 7 and 5 is 5 .
 $7 - 5$ is 2 .
 7 is the largest number and the original sign is negative, so the answer will be a -2 .

Subtracting integers with the same sign and different signs

1. Keep the first number the same
2. Change the subtraction sign to an addition sign
3. Change the next number to its opposite
4. Add following the addition rules

Example: $-3 - 10$
 $-3 + (-10)$
 -13

Multiplying integers with SAME signs

1. Multiply as usual
2. The answer is always positive

Multiplying integers with DIFFERENT signs

1. Multiply as usual
2. The answer is always negative

Dividing integers with SAME signs

3. Divide as usual
4. The answer is always positive

Dividing integers with DIFFERENT signs

3. Divide as usual
4. The answer is always negative