

ADDITION

(+)

Simple Rules for Signs

Simple Rules for Signs

SUBTRACTION

(-)

OPPOSITE SIGNS:
(- +) OR (+ -)

- * Subtract the smaller number from the larger number and keep the sign of the larger number.

Opposite signs, so subtract. → Example: $-8 + 5 = -3$ ← Subtract the numbers and keep the sign of the larger number.

We subtracted 5 from 8
The larger number is negative;
therefore, the answer is negative.

SAME SIGNS:
(- -) OR (+ +)

- * Add the numbers and keep the same sign.

Same signs, so add. → Example: $-4 - 6 = -10$ ← Add the numbers, then attach the sign that they both have.

We added 4 to 6
Both numbers are negative;
therefore, the answer is negative.

Addition / Subtraction

OPPOSITE SIGNS

$(- +)$ OR $(+ -) \Rightarrow$ Subtract the smaller number from the larger number, and keep the sign of the larger #.

Examples with answers:

$$-10 + 20 = 10$$

$$10 - 20 = -10$$

$$-30x + 12x = -18x$$

$$-5x^2 + 2x^2 = -3x^2$$

$$14xy - 6xy = 8xy$$

$$-3z + 13z = 10z$$

$$4t - 5t + 7t = 6t$$

Working two terms at a time, note that the numbers 4 and 5 have opposite signs, so subtract to get -1.

The opposite-signed numbers -1 and +7 will subtract, resulting in the solution +6t.

SAME SIGNS

$(--)$ OR $(++) \Rightarrow$ Add the numbers, and keep the sign that they have in common.

Examples with answers:

$$-7 - 9 = -16$$

$$7 + 9 = 16$$

$$-11x - 4x = -15x$$

$$x^2 + 9x^2 = 10x^2$$

$$8q + 14q = 22q$$

$$-3rs - 20rs = -23rs$$

$$-10w - 2w - w = -13w$$

Beginning with the first two terms, notice that the numbers 10 and 2 have the same sign (negative in this case), so add to get -12.

Add the numbers -12 and -1 to get -13 (Note: There is an understood 1 in front of the w, as in -1w).