**Numbers Can be Positive or Negative (Mathisfun.com)**

|  |  |
| --- | --- |
| Negative Numbers (−) | Positive Numbers (+) |

|  |  |
| --- | --- |
|  |  |
|  |  |

**No Sign Means Positive**

If a number has **no sign** it usually means that it is a **positive** number.

Example: **5** is really **+5**

**Numbers above (greater than) zero are positive. Numbers below (less than) zero are negative.**





Temp Scale for Integer

**The Rules: Adding and subtracting**

It can all be put into **two rules**:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **Rule** |   |   |  | **Example** |
| **+(+)**  | Two like signs become a **positive sign** |   | plus |   | 3+(+2) = 3 **+** 2 = 5 |
| **−(−)** |   | 6−(−3) = 6 **+** 3 = 9 |
|   |   |   |   |   |   |
| **+(−)**  | Two unlike signs become a **negative sign** |   | minus |   | 7+(−2) = 7 **−** 2 = 5 |
| **−(+)** |   | 8−(+2) = 8 **−** 2 = 6 |
|   |   |   |   |   |   |

They are "like signs" when they are like each other (in other words: the same).

**The Rules: Multiplying and Dividing**

|  |  |  |  |
| --- | --- | --- | --- |
|   |  |   | Example |
| plus× plus | two positives make a positive: | plus | 3 × 2 = 6 |
|   |   |   |   |
| minus× minus |   two negatives make a positive:   | plus |  (−3) × (−2) = 6 |
|   |   |   |   |
| minus× plus | a negative and a positive make a negative: | minus | (−3) × 2 = −6 |
|   |   |   |   |
| plus× minus | a positive and a negative make a negative: | minus | 3 × (−2) = −6 |

|  |
| --- |
| What is -9 + (+11) ?+(+) becomes a positive sign.So -9 + (+11) = -9 + 11 = 2Start at -9 and move 11 places to the right:[image] |
| What is -16 + (-3)?+(-) becomes a negative sign.So -16 + (-3) = -16 − 3 = -19Start at -16 and move 3 places to the left:[image] |

What is 20 + (-7)?

+(-) becomes a negative sign.
So 20 + (-7) = 20 − 7 = 13

Start at 20 and move 7 places to the left:
![[image]]()

What is -17 + (+13) ?

+(+) becomes a positive sign.
So -17 + (+13) = -17 + 13 = -4

Start at -17 and move 4 places to the right:
![[image]]()

What is the value of (-3) × (-5) ?

Remember that multiplying two negative numbers makes a positive number.
So (-3) × (-5) = +15

We can leave the + sign in the answer, but it's not necessary:
So we can also write (-3) × (-5) = 15

What is the value of (-4) × (+7) ?

Remember that multiplying a negative number by a positive number makes a negative number.
So, (-4) × (+7) = -28

What is the value of (+6) × (-9) ?

Remember that multiplying a positive number by a negative number makes a negative number.
So (+6) × (-9) = -54

What is the square of -7 ?

Remember that multiplying two negative numbers makes a positive number.
So (-7)2 = (-7) × (-7) = +49

We can leave the + sign in the answer, but it's not necessary:
So we can also write (-7)2 = 49

What is the value of (-2) **×** (+5) **×** (-3) ?

Do this in two steps, working from left to right:

1. Work out (-2) **×** (+5)
Remember that multiplying a negative number by a positive number makes a negative number.
So (-2) **×** (+5) = -10

2. Work out (-10) **×** (-3)
Remember that multiplying two negative numbers makes a positive number
So (-10) **×** (-3) = +30

We can leave the + sign in the answer, but it's not necessary:
So the answer is 30