

Positive and Negative Numbers

by Monica Yuskaitis

Definition

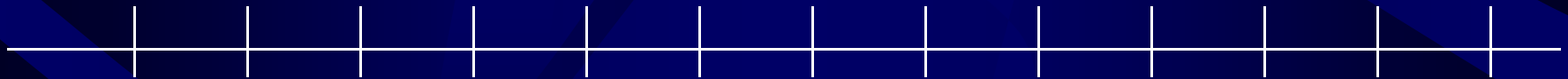
- Positive number – a number greater than zero.



Definition

- Negative number – a number less than zero.

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6



Definition

- Opposite Numbers – numbers that are the same distance from zero in the opposite direction

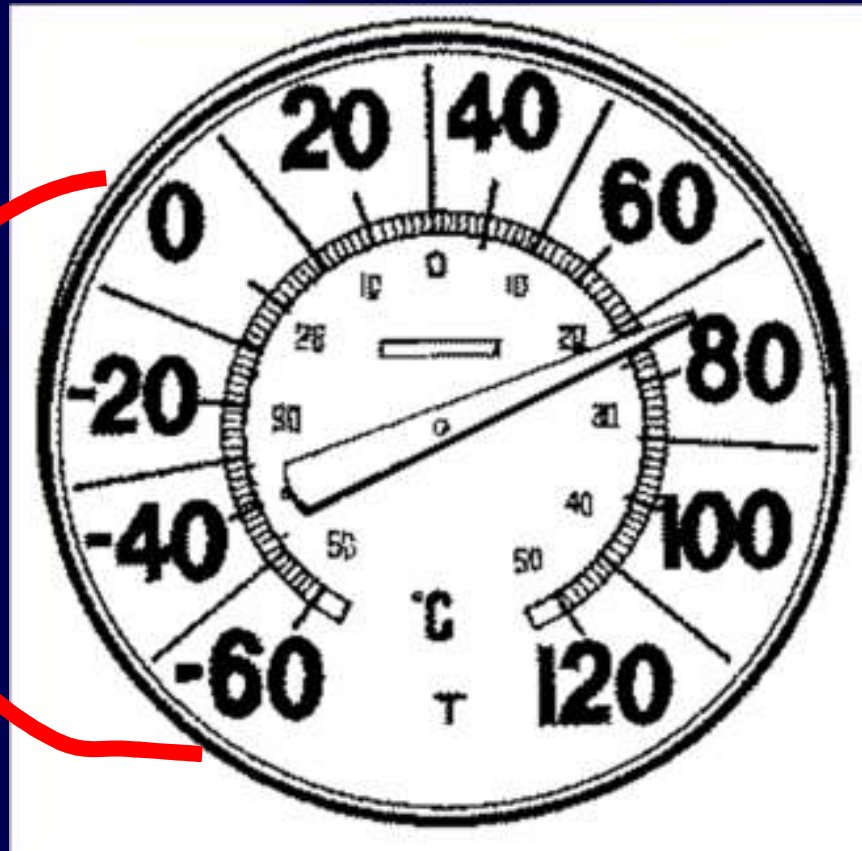


Definition

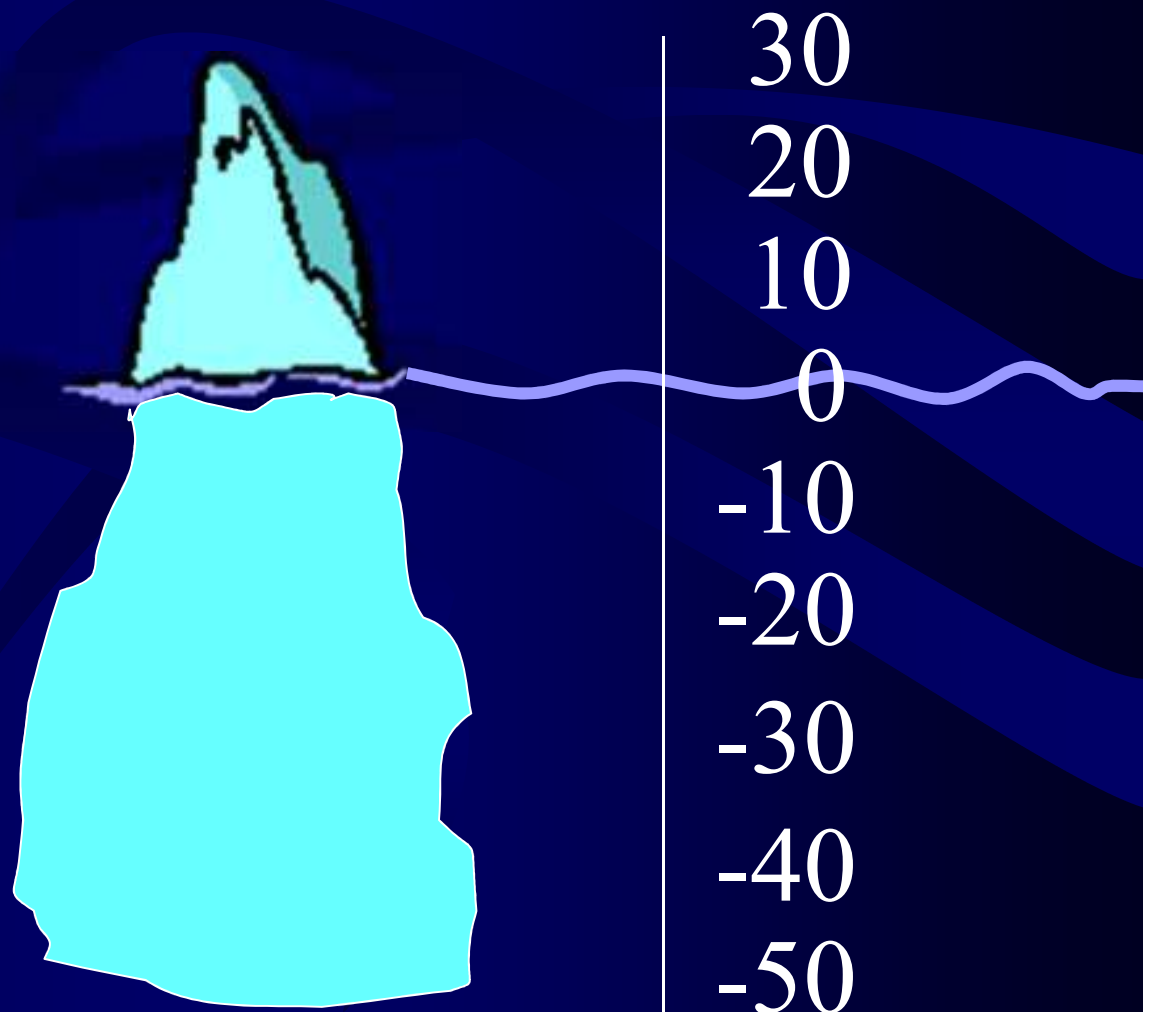
- Integers – Integers are all the whole numbers and all of their opposites on the negative number line including zero.

7 opposite -7

Negative Numbers Are Used to Measure Temperature



Negative Numbers Are Used to Measure Under Sea Level



Negative Numbers Are Used to Show Debt



Let's say your parents bought a car but had to get a loan from the bank for \$5,000. When counting all their money they add in $-\$5.000$ to show they still owe the bank.

Positive & Negative Numbers

Working with positive and negative numbers is like driving in traffic.

You have to watch the traffic signs and follow the driving rules.



Hint

- If you don't see a negative or positive sign in front of a number it is positive.

+ 9

Integer Addition Rules

- Rule #1 – If the signs are the same, pretend the signs aren't there. Add the numbers and then put the sign of the addends in front of your answer.

$$9 + 5 = 14$$

$$-9 + -5 = -14$$

Solve the Problems

$$\bullet -3 + -5 = -8$$

$$\bullet 4 + 7 = 11$$

$$\bullet (+3) + (+4) = 7$$

$$\bullet -6 + -7 = -13$$

$$\bullet 5 + 9 = 14$$

$$\bullet -9 + -9 = -18$$

Integer Addition Rules

- Rule #2 – If the signs are different pretend the signs aren't there. Subtract the smaller from the larger one and put the sign of the larger one in front of your answer.

Larger number $-9 + +5 =$

$9 - 5 = 4$ Answer $= -4$

Solve These Problems

• $3 + (-5) =$ $5 - 3 = 2$ -2

• $-4 + 7 =$ $7 - 4 = 3$ 3

• $(+3) + (-4) =$ $4 - 3 = 1$ -1

• $-6 + 7 =$ $7 - 6 = 1$ 1

• $5 + (-9) =$ $9 - 5 = 4$ -4

• $-9 + 9 =$ $9 - 9 = 0$ 0

One Way to Add Integers Is With a Number Line

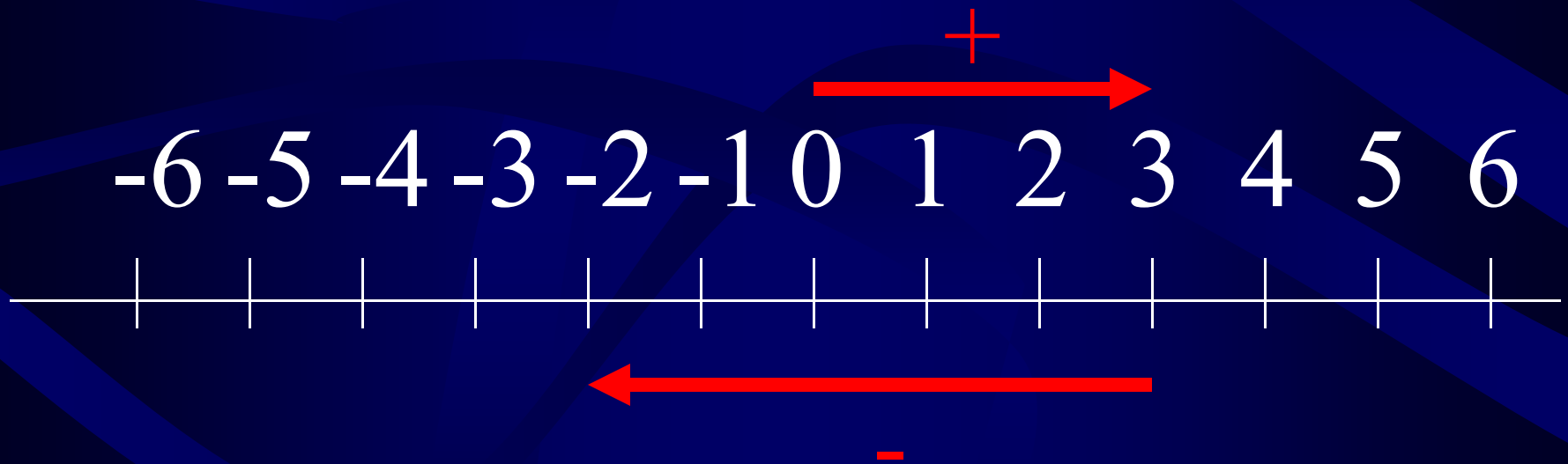
When the number is positive count
to the right.

When the number is negative count
to the left.



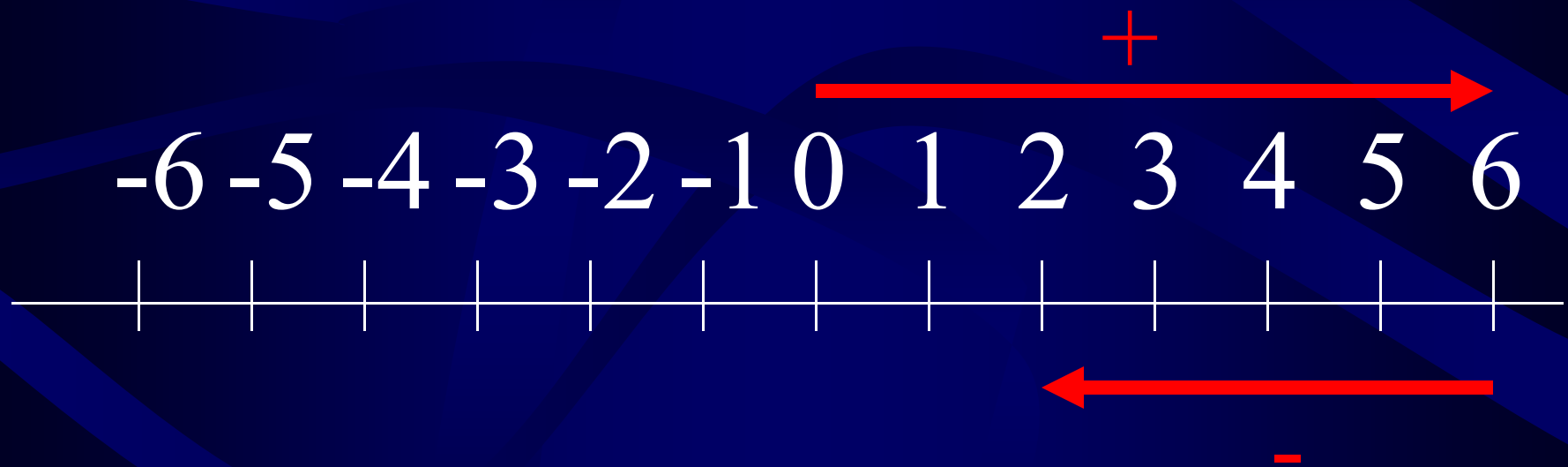
One Way to Add Integers Is With a Number Line

$$+3 + -5 = -2$$



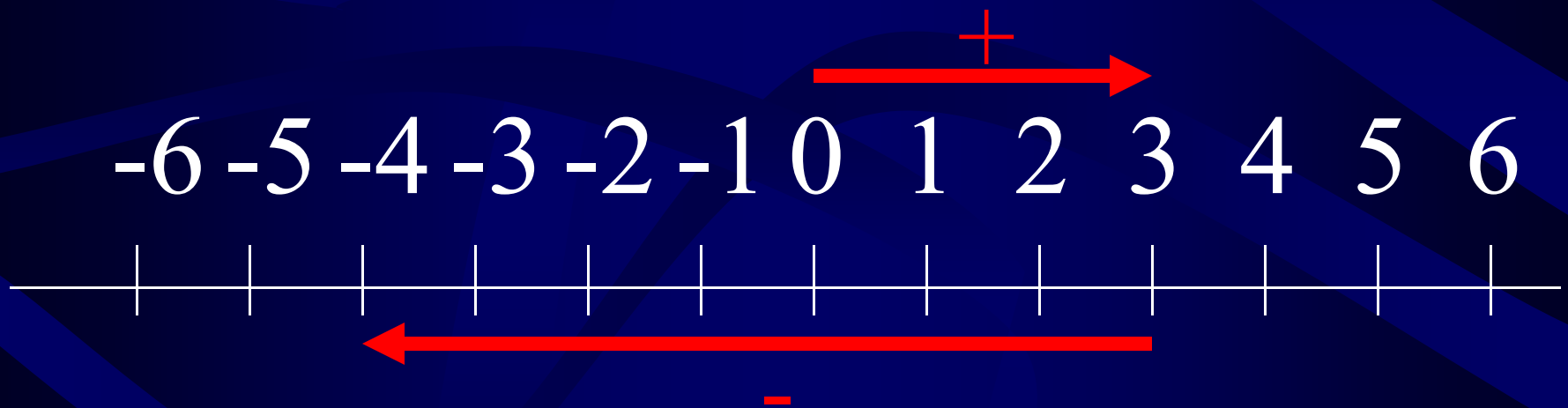
One Way to Add Integers Is With a Number Line

$$+6 + -4 = +2$$



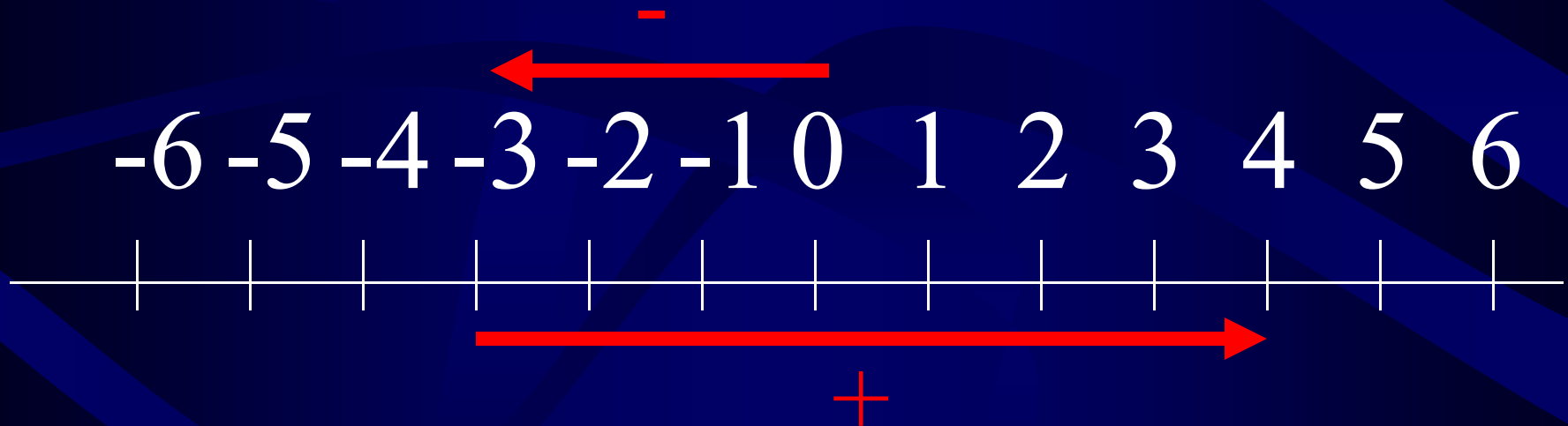
One Way to Add Integers Is With a Number Line

$$+3 + -7 = -4$$



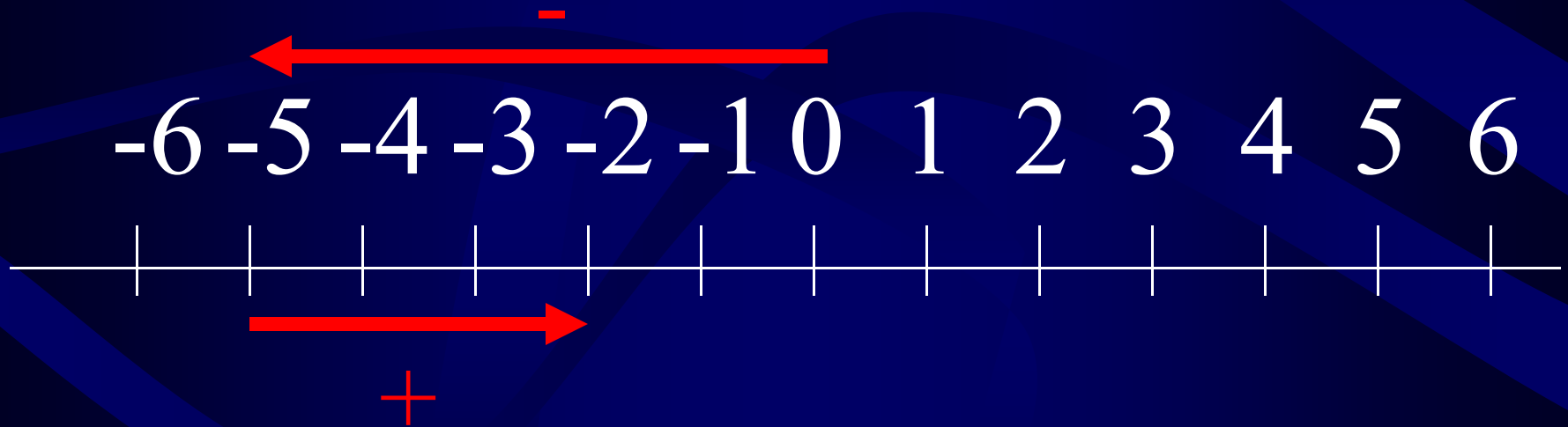
One Way to Add Integers Is With a Number Line

$$-3 + +7 = +4$$



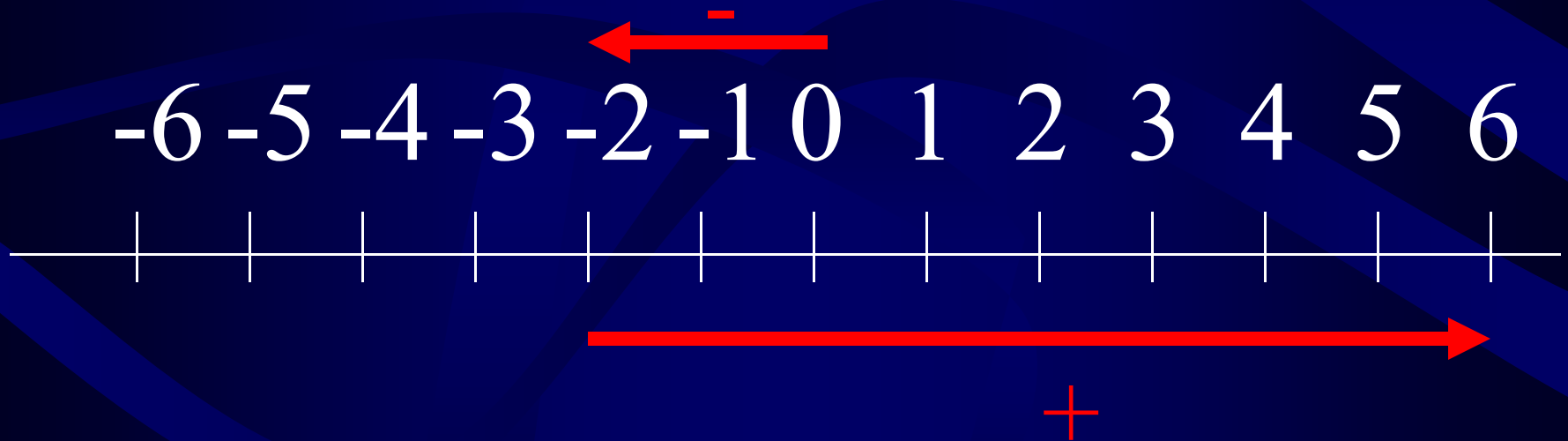
One Way to Add Integers Is With a Number Line

$$-5 + +3 = +4$$



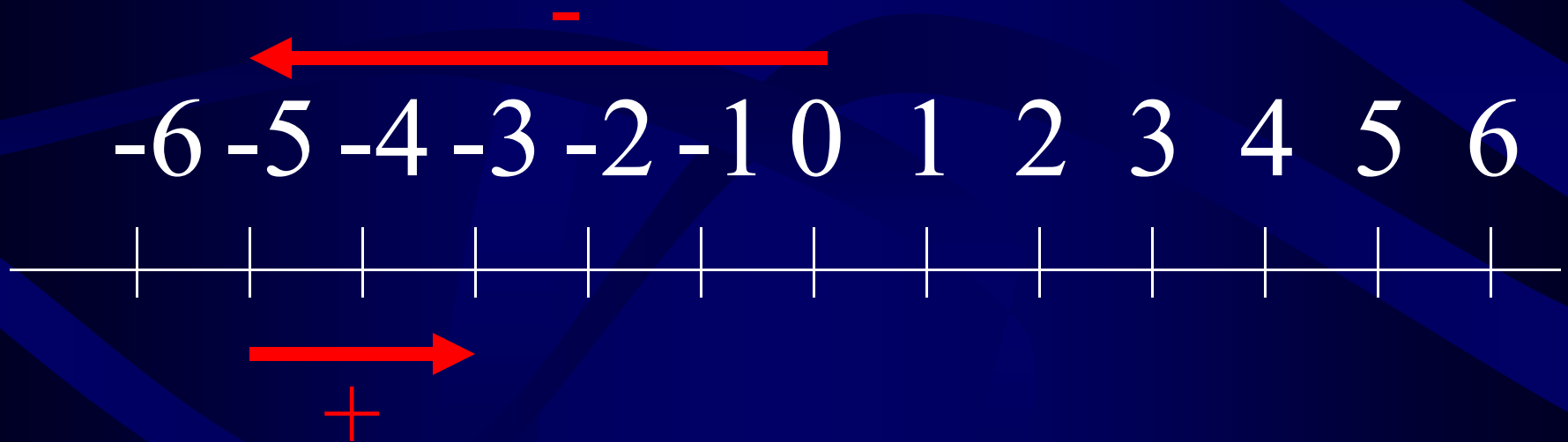
One Way to Add Integers Is With a Number Line

$$-2 + +8 = +6$$



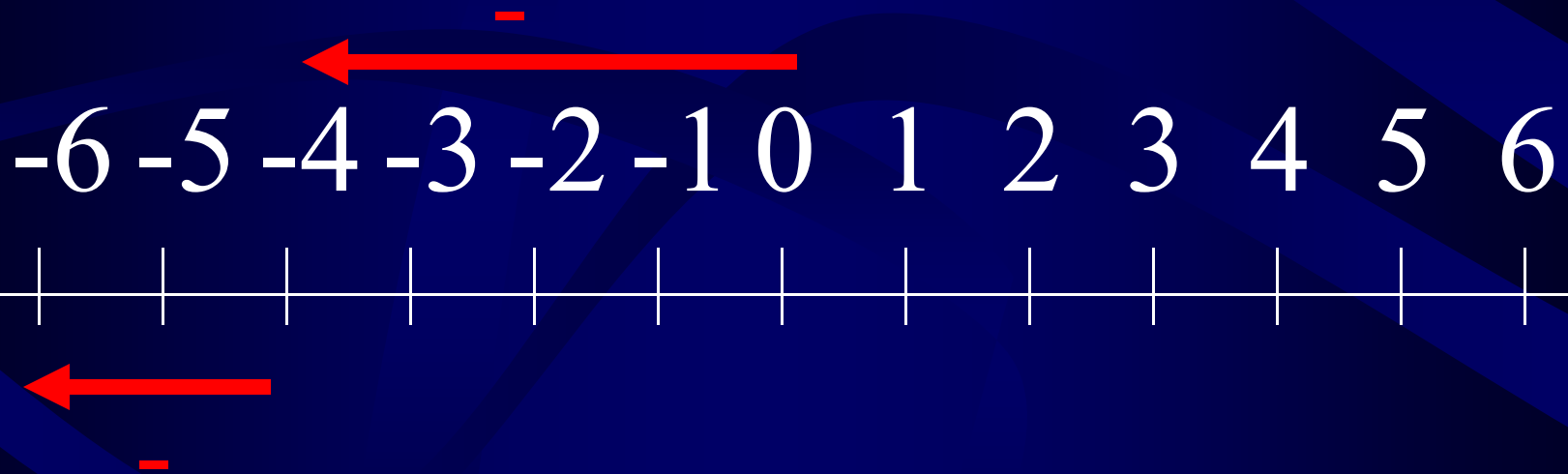
One Way to Add Integers Is With a Number Line

$$-5 + +2 = -3$$



One Way to Add Integers Is With a Number Line

$$-4 + -2 = -6$$



One Way to Add Integers Is With a Number Line

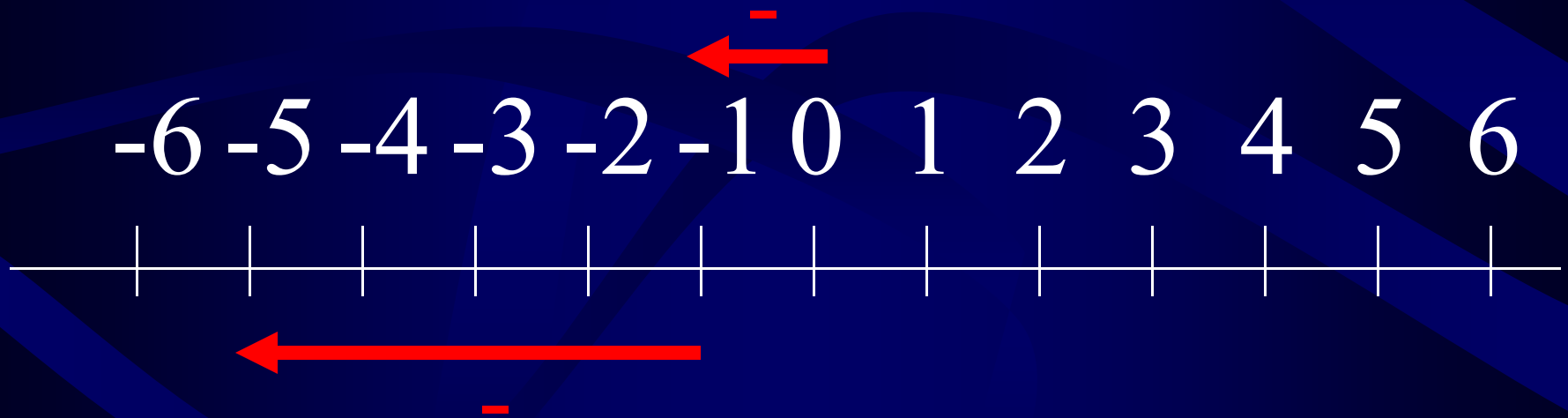
$$-2 + -3 = -5$$

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6



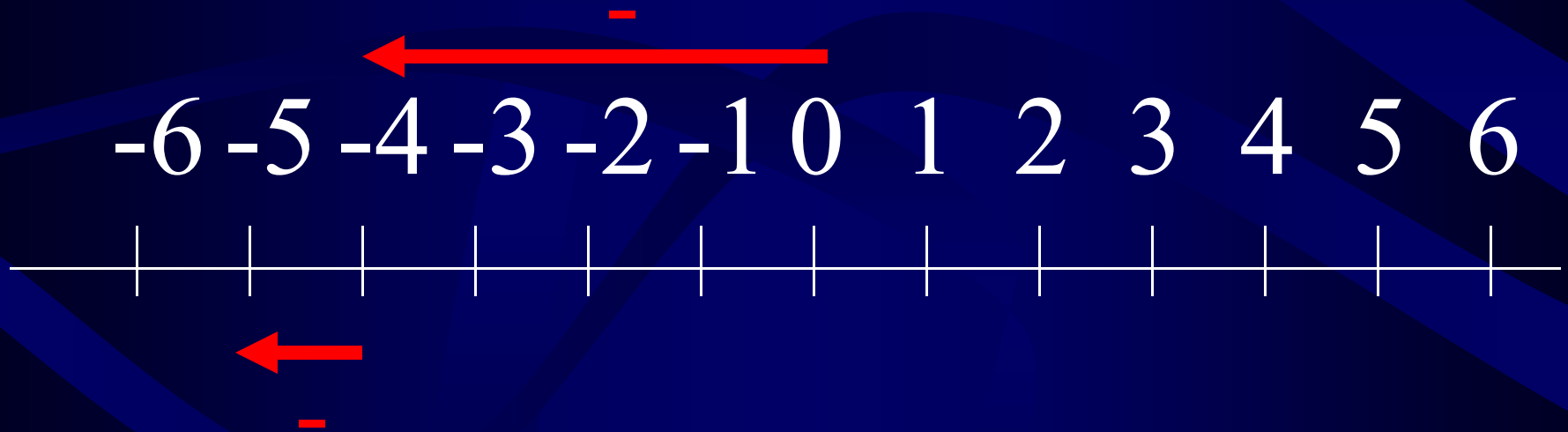
One Way to Add Integers Is With a Number Line

$$-1 + -4 = -5$$



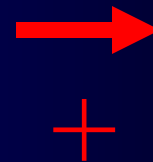
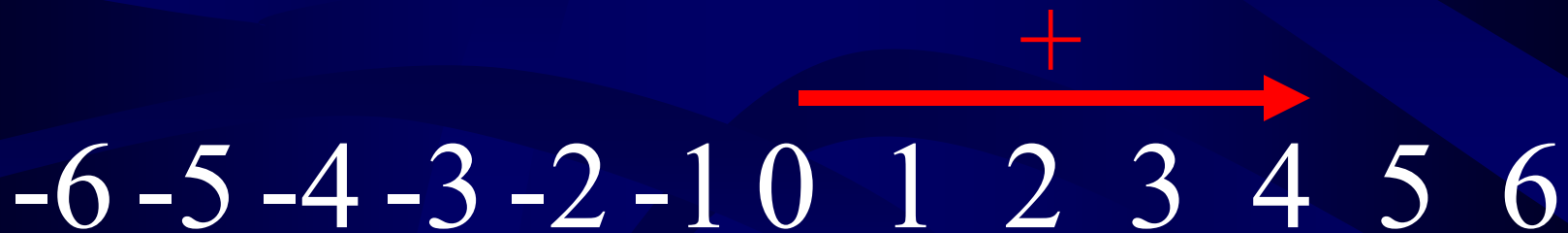
One Way to Add Integers Is With a Number Line

$$-4 + -1 = -5$$



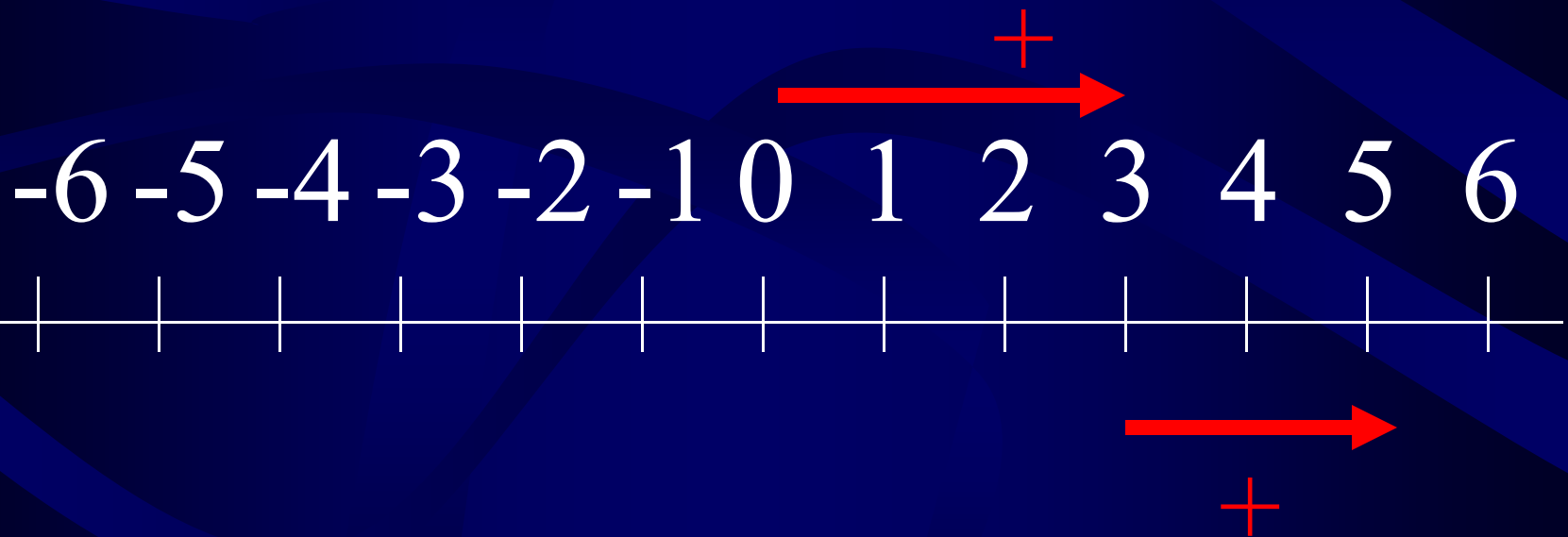
One Way to Add Integers Is With a Number Line

$$4 + 1 = 5$$



One Way to Add Integers Is With a Number Line

$$3 + 2 = 5$$



One Way to Add Integers Is With a Number Line

$$1 + 5 = 6$$

