

Notes & Steps



Key idea

Integers are whole numbers that can be positive, negative, or zero. They have no fractions or decimals. Use a number line to visualise addition and subtraction.

Steps – adding integers

1. Start at the first number on the number line.
2. If adding a positive, move right. If adding a negative, move left.

Steps – subtracting integers

1. Change subtraction to adding the opposite.
2. Then follow the addition rules.
3. Example: $7 - (-2) = 7 + 2 = 9$.

Key facts

- ▶ Opposite of -7 is 7 .
- ▶ $3, -5, 0$ are integers; $1/2$ and -5.5 are not.
- ▶ $-3 + 5 = 2$ (start at -3 , move 5 right)
- ▶ $7 - (-2) = 7 + 2 = 9$
- ▶ $(-3) + (-4) = -7$
- ▶ On a number line, $-1 > -5$ because -1 is further right.

Common mistake

Thinking -5 is greater than -1 . On the number line, -1 is to the right of -5 , so $-1 > -5$.

Try these

1. What is the opposite of -7 ?
2. Calculate: $-3 + 5$.
3. Order from smallest: $-2, 0, 3$.

Notes & Steps



Example 1: temperature rise

A temperature is -4°C . It rises by 10°C .
What is the new temperature?

$$-4 + 10 = 6$$

Answer: 6°C .

Example 2: adding negatives

Calculate $(-3) + (-4)$.

$$(-3) + (-4)$$

Start at -3 , move 4 left: -7 . Answer: -7 .

Try these

1. Calculate: $5 + (-2)$.
2. Calculate: $-1 - 3$.
3. Calculate: $7 - (-2)$.

Notes & Steps



Example 3: multiply negatives

Calculate $(-3) \times 4$.

$$(-3) \times 4$$

Positive \times negative = negative. Answer:
 -12 .

Example 4: diving scenario

A diver at -12 m ascends 3 m then descends 5 m.

$$-12 + 3 - 5 = -14$$

Answer: final depth is -14 m.

Common mistake

Forgetting that two negatives make a positive. $(-3) \times (-4) = 12$, not -12 . Think: subtracting a debt means gaining money.