

Grade 6 - Integers and Rational Numbers on the Number Line - Answer Key

Common Core 6.NS.C.5, 6.NS.C.6a, 6.NS.C.6c · maths-pdf.fr/en/

Check your answers here. Each solution explains which side of zero the number is on, how opposites are found, and where points belong on the number line. Number lines are included for the plotting problems.

Grade 6 · Common Core State Standards: **6.NS.C.5**, **6.NS.C.6a**, **6.NS.C.6c**

Exercise 1 - Diver below sea level

Below sea level (0) is negative.

−25

Exercise 2 - Bank account

A deposit adds money, so it is positive: +60.

A payment takes money out, so it is negative: −40.

+60 **and** −40

Exercise 3 - Temperature below zero

−8°F

Exercise 4 - Opposites

The opposite is the same distance from 0 on the other side.

(a) −11 . (b) 20. (c) 0 is its own opposite.

−11 ; 20; **0**

Exercise 5 - Opposite of an opposite

The opposite of -9 is 9.

9

Exercise 6 - Name the integers

Read each point from 0: left is negative, right is positive.

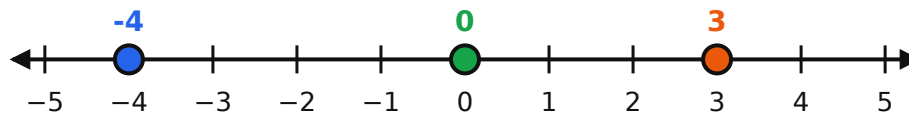
A is -3 , B is 2, and C is -5 .

A = -3 , B = 2, C = -5

Exercise 7 - Plot integers

Count 4 units left of 0, stay at 0, and count 3 units right of 0.

Points at -4 , 0, and 3



Plotted points.

Exercise 8 - Read a thermometer

P is above 0, so it is positive: 4. Q is below 0: negative 7 (between the marks at -6 and -8).

P = 4° , Q = -7°

Exercise 9 - Elevation

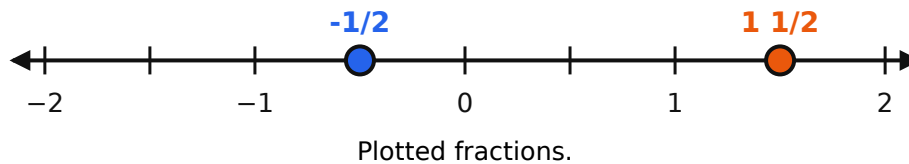
Valley: -150 . Mountain: 2,500.

-150 feet and 2,500 feet

Exercise 10 - Plot fractions

$-\frac{1}{2}$ is halfway between 0 and -1 . $1\frac{1}{2}$ is halfway between 1 and 2.

Points at $-\frac{1}{2}$ and $1\frac{1}{2}$



Exercise 11 - Locate a decimal

-2.5 is halfway between -3 and -2 .

-2 is closer to 0.

between -3 and -2 ; -2 is closer to 0

Exercise 12 - Opposites of rational numbers

(a) $\frac{3}{4}$. (b) -2.6 . (c) 0.05 .

$\frac{3}{4}$; -2.6 ; 0.05

Exercise 13 - Equal distance from zero

They are opposites. Each is 4 units from 0, on opposite sides.

Opposites, 4 units from 0

Exercise 14 - Withdrawal

A withdrawal takes money out, so it is -35 .

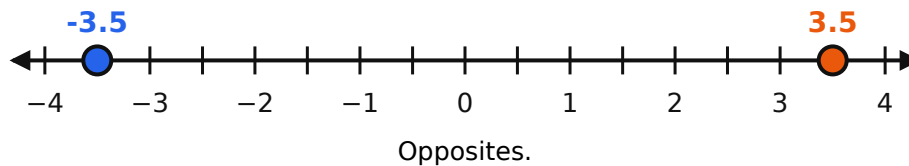
0 would mean no change in the account.

-35 ; 0 means no change

Exercise 15 - Plot opposites

The opposite of -3.5 is 3.5 .

Points at -3.5 and 3.5



Exercise 16 - Write a situation

Sample: In a game, a player loses 10 points (-10) or gains 10 points ($+10$).

Any situation with opposite meanings and equal amounts is correct.

Exercise 17 - Read a fraction

A is 5 fourths to the left of 0.

$$-1\frac{1}{4} = -1.25$$

Exercise 18 - Three points

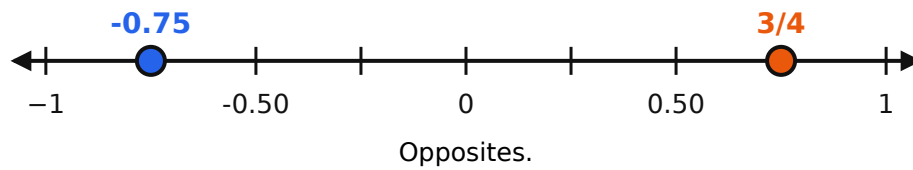
Each tick is 0.5.

$$\mathbf{A} = -2.5, \mathbf{B} = 0.5, \mathbf{C} = 3.5$$

Exercise 19 - Fractions and decimals

$\frac{3}{4} = 0.75$, so the points are 0.75 right of 0 and 0.75 left of 0.

They are opposites.



Exercise 20 - Opposite temperatures

The opposite of -4 is 4 , so Tuesday was 4 degrees.

Monday is below 0 and Tuesday is above 0.

4°F ; **Monday was colder**