

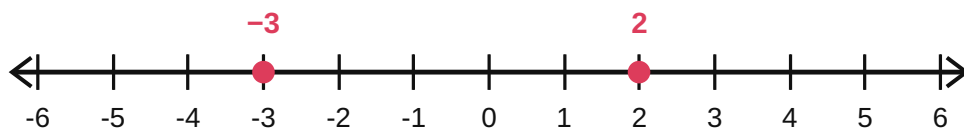
Boost Free Lessons - Year 6 Maths

Lesson 3: Negative Numbers and Integers

Name: _____ Grade: _____ Date: _____

Worked Example 1

Place -3 and 2 on the number line, then find the distance between them.



1. **Integers** are whole numbers, including negatives: ... -2 , -1 , 0 , 1 , 2 ...
2. Numbers to the **left** of zero are negative and get smaller as you move left.
3. -3 sits three steps left of zero, and 2 sits two steps right of it.
4. Count the steps between them: 3 steps up to zero, then 2 more, which is 5.

The distance between -3 and 2 is 5

Worked Example 2

The temperature is -4°C and rises by 7°C . What is the new temperature?

1. Rising means moving to the **right** along the number line.
2. Start at -4 and count 7 steps right.
3. Four steps takes you to 0 , which uses up 4 of the 7.
4. There are 3 steps left, so keep going right from zero to 3.

The new temperature is 3°C

Remember: On a number line, numbers get **smaller** as you move left. A larger digit after a minus sign means a **smaller** number, so -20 is less than -3 .



Question 1: Answer the following.

1. Which is smaller: -5 or -2 ?

2. Which is larger: -1 or 0 ?

3. Which is smaller: -8 or 3 ?

4. Which is larger: -10 or -15 ?

5. Order from smallest: $3, -2, 0, -5$

6. Order from smallest: $-1, -7, 4, -3$

7. What is 4 less than 2?

8. What is 3 less than -1 ?



Question 2: Answer the following.

1. Find the distance between -5 and 1 on a number line.

2. Find the distance between -6 and -2 .

3. The temperature is -7°C and rises 10°C . What is the new temperature?

4. The temperature is 5°C and falls 9°C . What is the new temperature?

5. What number is halfway between -4 and 2 ?

6. Explain why -20 is smaller than -3 .



Question 3: Answer the following questions.

1. In Thredbo the temperature was -6°C at dawn and 4°C at midday. By how much did it rise?
2. A submarine sits 40 m below sea level, written as -40 m. It rises 15 m. What is its new depth?
3. A lift starts at level -2 , goes up 5 levels, then down 4. Which level is it on?
4. Ben's account balance is $-\$35$. He deposits $\$50$. What is his new balance?
5. The lowest point on land is about 430 m below sea level. Write this as an integer.





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Answers: Negative Numbers and Integers**Question 1**

1. -5
2. 0
3. -8
4. -10
5. -5, -2, 0, 3
6. -7, -3, -1, 4
7. -2
8. -4

Question 2

1. 6
2. 4
3. 3°C
4. -4°C
5. -1
6. -20 is further to the left of zero on the number line, and numbers get smaller as you move left.

Question 3

1. 10°C
2. -25 m
3. Level -1
4. \$15
5. -430 m

