

# Number Line: Integers

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

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# Learning Objectives



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We will learn, how to



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We will learn, how to

- ▶ Use integers to represent quantities in multiple contexts



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- ▶ Compare integers on the number line



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We will learn, how to

- ▶ Use integers to represent quantities in multiple contexts
- ▶ Compare integers on the number line
- ▶ Change the relative positions of integers on the number line



# System Requirement



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- ▶ macOS Catalina version 10.15.7



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- ▶ **macOS Catalina version 10.15.7**
- ▶ **Google Chrome version 101.0.49**



# Prerequisites



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- ▶ Learners should be familiar with topics in basic mathematics



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- ▶ Learners should be familiar with topics in basic mathematics
- ▶ Please use the link below to access the tutorials on PhET Simulations  
<https://spoken-tutorial.org>



# Link for PhET Simulation



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- ▶ Please use the given link to download the PhET simulation  
<https://phet.colorado.edu/en/simulations/number-line-integers>



# PhET Simulation



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In this tutorial we will use,



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In this tutorial we will use,

- ▶ **Number Line: Integers** PhET simulation



# Transactions Table

Table 1: Transactions

Transaction No.	Bank Account 1	Bank Account 2
1	Deposit \$17 as earnings	Withdraw \$50 for weekly expenses
2	Withdraw \$12 as a monthly loan payment instalment	Withdraw \$9 for a medical emergency
3	Deposit \$10 as a bonus payment	Deposit \$5 as earnings



# Temperature Comparison

Table 2: Temperature Comparison (in Celsius)

Month	Location A	Location B	Location C	Comparison
January	-4	28	-22	$-22 < -4 < 28$ C (coldest) < A < B (warmest)
April	7	28	1	$1 < 7 < 28$ C (coldest) < A < B (warmest)
June	21	25	14	$14 < 21 < 25$ C (coldest) < A < B (warmest)
October	5	25	6	$5 < 6 < 25$ A (coldest) < C < B (warmest)
December	-7	28	-21	$-21 < -7 < 28$ C (coldest) < A < B (warmest)



# Summary

We have learnt, how to

- ▶ Use integers to represent quantities in multiple contexts
- ▶ Compare integers on the number line
- ▶ Change the relative positions of integers on the number line



# Assignment

- ▶ **Make a comparison table for 2 bank accounts**

<b>Bank Account</b>	<b>Salary</b>	<b>Rent</b>	<b>Loan payment</b>	<b>School fees</b>	<b>Other expenses</b>
<b>Bank Account 1</b>					
<b>Bank Account 2</b>					



# Assignment

1. Arrange the numbers in ascending order,  $-11, 8, -6, -2, 2, 5$
2. Complete the missing numbers:  
 $---, -8, ---, 8, ---, 24, ---, 40$
3. Complete the following pattern using number line:  $-14, -9, -4, 1, 6, ---, ---, ---, ---$



# About the Spoken Tutorial Project

- ▶ Watch the video available at [https://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](https://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- ▶ It summarises the Spoken Tutorial project



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- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Answers for THIS Spoken Tutorial

- ▶ Questions in THIS Spoken Tutorial?
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer



You will have to register to ask questions



# Acknowledgements

**The Spoken Tutorial project is funded by the Ministry of Education, Govt. of India**



# Thank you

- ▶ This is Radhika Yadav, a FOSSEE summer fellow 2022, IIT Bombay signing off
- ▶ Thanks for joining

