



UIN SYARIF
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STUDENT WORKSHEET **CONCEPTS AND COMPARING INTEGERS NUMBERS**

PHASE D/CLASS VII JHS



Name :

Class :

Taks 1: The World Below Zero

1. Click on the PhET Icon or scan this QR Code to teleport to the Virtual Lab.



2. Press the Play button on the simulation screen.
3. Choose "Explore" to play with the number line, bird, and fish.
4. Keep this tab open while you complete your worksheet!

Question!

1. Move the object/slider to the right of zero. What happens to the numbers?

2. Now, move the object to the left of zero.

- What symbol appears in front of the numbers?

- Does the color of the background/object change?

Taks 2: Comparing Positions

Click on the PhET Icon or scan this QR Code to teleport to the Virtual Lab.



Keep this tab open while you complete your worksheet!

Question!

Place the objects on the following points in the simulation, then fill in the blanks with $>$ (greater than) or $<$ (less than):

1. -5 5

2. 6 -3

3. -10 0

4. -5 -2

5. 4 -10

Challenge: If you move from -3 and go 5 steps to the right, where do you land?

Final Position is _____

Taks 3: Real-World Connection

Click on a point on the left and drag to the correct answer on the right to draw a connection line.

A bird flies 10 meters above sea level.



-50.000

A submarine dives 20 meters below sea level.



+10 meters

you have a debt of Rp50.000 to a friend.



-20 meters

Taks 4: My Discovery

Click on empty box you see in the worksheet and type your answer based on your exploration today, complete this sentence:

"In the negative world, a number that looks 'bigger' actually has a value than -1 because it is further to the of zero."

Exercise

Answer the following questions based on your exploration using the PhET Integers simulation.



1. A submarine is at a depth of 25 meters below sea level. If sea level is 0, how is this position written?

2. If the temperature is -2°C and then it drops by 3 degrees, what is the temperature now?

3. Arrange these numbers from the smallest value to the largest: -5, 2, -10, 0, 4.

4. The temperature at the base of a mountain is 8°C . As you climb higher, the temperature drops by 12 degrees. What is the temperature at the top?

5. A diver is swimming at -12 meters (12 meters below sea level). He sees a beautiful coral reef and descends another 5 meters to take a photo. What is his new depth?

Mistakes are proof that you are trying! Keep exploring, keep learning, and keep growing. You've got this, Math Explorer!

Student Mission: Integer Challenge

"It's time to put your discovery into action! Use your knowledge from the PhET Simulation to master this quiz."

Click here or scan QR code to open the Formative Assessment and complete all the questions carefully.



"You've finished the quiz! Now, take a moment to look back at what you've discovered today."

- Close your quiz tab and come back to this page.
- Scroll down to the "Student Reflection" section.

Student Reflection: My Discovery Journey

Take a moment to think about your experience today. Describes your feelings and answer the questions honestly.

1. After using the PhET simulation, what is the most important thing you learned about numbers less than zero?

2. What part of the exploration was the most difficult for you? How did you solve it?

3. On a scale of 1 to 5, how confident are you now in explaining why -10 is smaller than -2 ?

4. Can you think of one situation in your daily life where you can now use a negative number to describe it?

Great job on finishing! Every challenge you solve makes your brain stronger. Proud of your hard work today!

GREAT JOB, EXPLORER! THANK YOU

Once all tasks are done, scroll to the bottom and click the "Finish!!" button.

Select "Email my answers to my teacher."

Email: jelita.auliaax23@gmail.com

