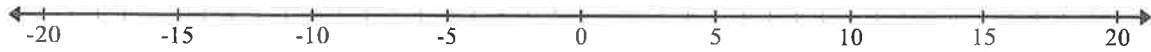


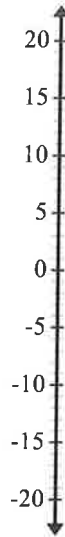
Review:

Place each of the following integers on the number line below. Label each point:

5. $A = 4$ $B = -4$ $C = -15$ $D = 7$ $E = 18$ $F = -19$



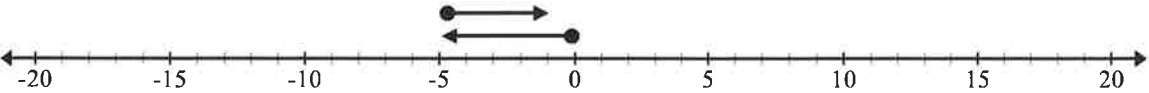
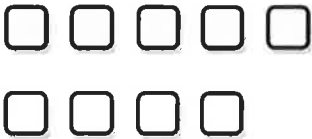
6. $A = -20$ $B = -17$ $C = 7$ $D = 13$ $E = -6$ $F = 19$



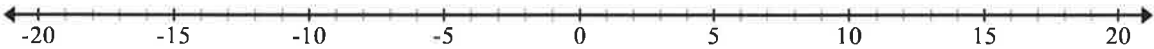
7. How did you locate 7 on the number line?
8. How did you locate -15 on the number line?
9. In general, how do you locate a positive or negative number on a number line?
10. Brainstorm similarities and differences between a chip model and number line model for representing integers.

Previously in this section, you used a chip model for addition of integers. In this activity you will explore a number line model of addition of integers. Model each of the following with both a number line and chips. Start by circling the operation

Example: $-5 + 4$

<p>Number line:</p>  <p style="margin-top: 20px;">$-5 + 4 = -1$</p>
<p>Chips</p> <div style="text-align: center; margin: 20px 0;">  </div> <p style="margin-top: 20px;">$-5 + 4 = -1$</p>

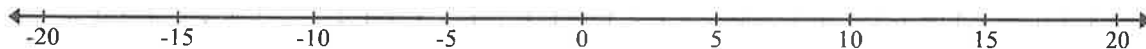
11. Model $7 + -3$ on a number line and with chips:

<p>Number line</p> 
<p>Chips</p>

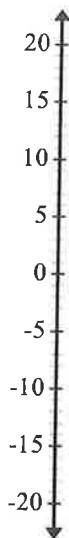
12. Explain how the number line and chip models are related:

Circle the operation you are going to perform. Find the sum using a number line for the following addition exercises.

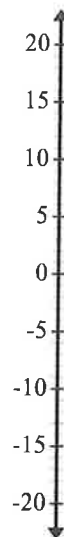
13. $6 + (-3)$



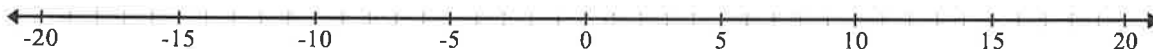
14. $-3 + (-9)$



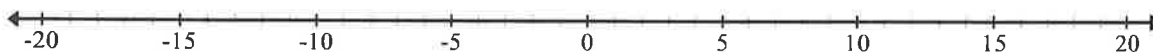
15. $-4 + (-4)$



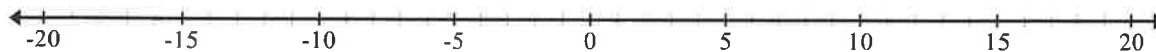
15. $6 + (-6)$



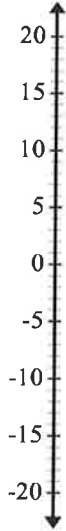
16. $-9 + 8$



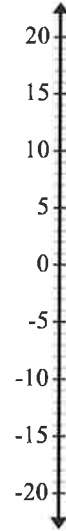
17. $20 + (-8)$



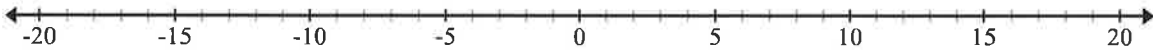
18. $-12 + 14$



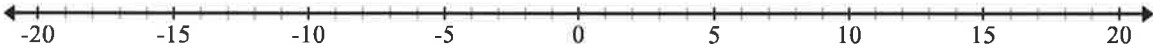
19. $9 + (-25)$



20. $12 + (-9)$



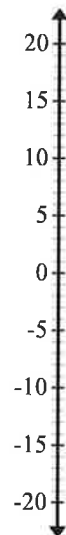
21. $-8 + (-7)$



22. $-7 + (-7)$



23. $13 + (-13)$

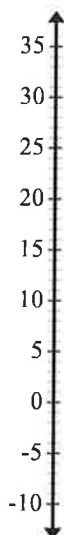


Below are the questions from the exploration at the beginning of Class Activity 2.1b. For each context, do the following:

- a. use a number line to model the problem situation
- b. answer the question in the context
- c. write an addition equation to show the sum
- d. explain how the model is related to how you found the answer when you answered the question

24. An osprey flies off the ground and reaches 35 feet above a river when he sees a trout. He then dives 37 feet down to get the trout. How many feet below the water does he end up?

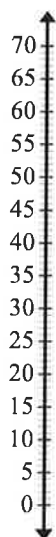
a.



b.
c.
d.

25. Zach's football team moves the football 35 yards forward on the first down. On the next down, they lose 12 yards. On the down after that they go forward 8 yards. How many yards from the starting point did they move the football in the three downs?

a.



b.
c.
d.