

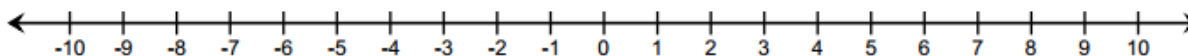
Lesson Summary

- **THE RULE OF SUBTRACTION:** Subtracting a number is the same as adding its opposite.
- Removing (subtracting) a positive card changes the score in the same way as adding a corresponding negative card.
- Removing (subtracting) a negative card makes the same change as adding the corresponding positive card.
- For all rational numbers, subtracting a number and adding it back gets you back to where you started:
 $(m - n) + n = m$.

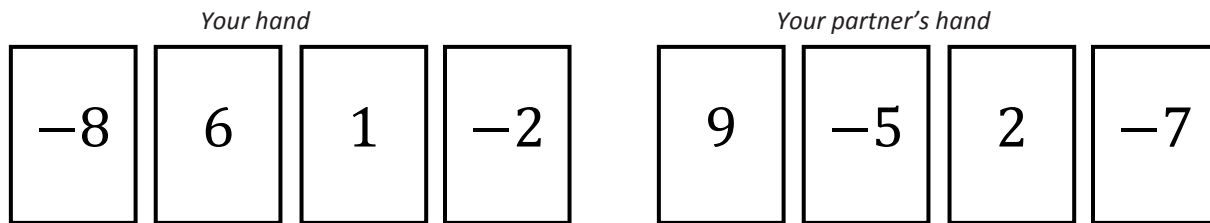
Problem Set

1. On a number line, find the difference of each number and 4. Complete the table to support your answers. The first example is provided.

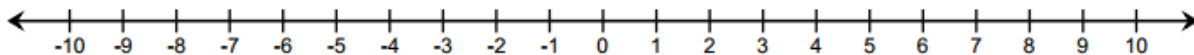
Number	Subtraction Expression	Addition Expression	Answer
10	$10 - 4$	$10 + (-4)$	6
2			
-4			
-6			
1			



2. You and your partner were playing the Integer Game in class. Here are the cards in both hands.



- a. Find the value of each hand. Who would win based on the current scores? (The score closest to 0 wins.)
 - b. Find the value of each hand if you discarded the -2 and selected a 5 , and your partner discarded the -5 and selected a 5 . Show your work to support your answer.
 - c. Use your score values from part (b) to determine who would win the game now.
3. Write the following expressions as a single integer.
- a. $-2 + 16$
 - b. $-2 - (-16)$
 - c. $18 - 26$
 - d. $-14 - 23$
 - e. $30 - (-45)$
4. Explain what is meant by the following, and illustrate with an example:
 “For any real numbers, p and q , $p - q = p + (-q)$.”
5. Choose an integer between -1 and -5 on the number line, and label it point P . Locate and label the following points on the number line. Show your work.



- a. Point A : $P - 5$
- b. Point B : $(P - 4) + 4$
- c. Point C : $-P - (-7)$

Challenge Problem:

6. Write two equivalent expressions that represent the situation. What is the difference in their elevations?
 An airplane flies at an altitude of 26,000 feet. A submarine dives to a depth of 700 feet below sea level.