

Name _____

HW # 4

1. $-5 + 9$

4

2. $-7 + (-12)$

-19

3. $8 - 12$

$8 + (-12)$

-4

4. $10 + (-32)$

-22

5. $54 + (-11)$

43

6. $26 + (-26)$

0

7. $-4 - 16$

$-4 + (-16)$

-20

8. $16 - (-7)$

$16 + 7$

23

9. $-4 - (-10)$

$-4 + 10$

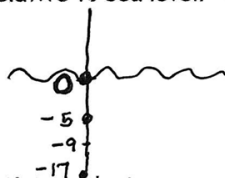
6

10. You know that the sum of -5 and another integer is a positive integer. What can you conclude about the sign of the other integer? What can you conclude about the value of the other integer?

$-5 + \square = \text{positive integer}$

The other integer must have a greater absolute value than 5 .

11. A seal is swimming in the ocean 5 feet below sea level. It dives down 12 feet to catch some fish. Then the seal swims 8 feet up towards the surface with its catch. What is the seal's final elevation relative to sea level? Write and evaluate an expression of integers to represent this situation.



$-5 - 12 + 8$

$-17 + 8$

-9 ft

or 9 ft below sea level

12. A scientist conducts an experiment in which he records the temperature of a gas that he has heated. The table below shows the initial temperature and the final temperature of the gas.

Initial Temperature	Final Temperature
-21°C	-8°C

a) Write a difference of integers to find the overall temperature change.

$-8 - (-21) \rightarrow 13^{\circ}$ temperature change

$-8 + 21$

b) Suppose the scientist conducted an experiment in which he cooled the gas. Will the change in temperature be positive or negative? Explain

The change would be negative because cooling the gas would lower the temperature