Practice 3 – Adding and Subtracting Integers

Objective: To add and subtract real numbers.

Examples:

Adding Integers with the Same Sign → Add their absolute values. Give the sum the same sign as the integers.

-3 + -4 = -7 Add |-3| and |-4|. Both numbers are negative so the sum is negative.

Adding Integers with Different Signs → Subtract their absolute values. Give the result the same sign as the integer with the greater absolute value.

-5 + 4 = -1 Subtract |4| from |-5|. The sum is negative because |-5|>|4|

Subtracting Integers → To subtract an integer, add its additive inverse.

9 – 17 = -8 To subtract 17, add -17.

Simplify each expression.

1. -7 + (-4)

2. 6 + (-3)

3. -3 + (-5)

4. -36 + 19

5. -19 + (-11)

6. 9 – 16

7. 7 – (-4)

8. -8.7 + (-10.3)

9. -2.3 + 4.5

10. -14 – 4

11. 8 – (-6)

12. -10 – (-6)

13. 2.4 + (-8.7) + 3.6

14. |-2| + (-4) + 10

Practice 4 – Multiplying and Dividing Integers

Objective: To multiply and divide real numbers.

Examples:

-9(-4) = 36	The product of **two positive** or **two negative** numbers is **positive**.
5(-2) = -10	The product of a **positive number and a negative number**, or a **negative number and a positive number**, is **negative**.
6 ÷ 3 = 2	The quotient of **two positive numbers** or **two negative numbers** is **positive**.
-14 ÷ 2 = -7	The quotient of **a positive number and a negative number**, or a **negative number and a positive number**, is **negative**.

Simplify each expression.

1. 3(-5)

2. -8(-4)

3. $\frac{-18}{-3}$

4. -121 ÷ 11

5. -5^3

6. $\frac{2}{3}\left(-\frac{4}{5}\right)$

7. -7.2(-3.1)

8. -39 ÷ (-3)

9. $9\left(-\frac{5}{18}\right)$

10. (-6)(-2)(-5)

11. (-2)(5)(-3)

12. $\frac{3-14}{-2}$