POSITIVE AND NEGATIVE NUMBERS

ADDITION

LIKE signs – Add the numbers and keep the common sign.

UNLIKE signs – Find the difference between the 2 numbers and keep the sign of the “larger” number (i.e. the number with the greatest absolute value).

Examples: LIKE signs  UNLIKE signs
-7 + -3 = -10  5 + -9 = -4
8 + 6 = 14  9 + -8 = 1

SUBTRACTION

1. Change the subtraction to addition:
   Change the subtraction sign to an addition sign.

2. Make the second number its opposite:
   Change the sign of the second number.

3. Use the addition rules to determine the answer

Examples:  -7 - -5 = -7 + +5 = -2
            8 - -10 = 8 + +10 = 18
            -5 - 8 = -5 + -8 = -13
            3 - 9 = 3 + -9 = -6

MULTIPLICATION AND DIVISION

Two LIKE signs – The answer is positive [i.e. (+)(+) = (+) and (-)(-) = (+)]
Two UNLIKE signs – The answer is negative [i.e. (+)(-) = (-) and (-)(+) = (-)]

Examples  LIKE signs  UNLIKE signs
-8 \cdot -9 = 72  5 \cdot -7 = -35
-40 \div -8 = 5  \frac{-16}{8} = -2