Properties of Multiplication

1. Fill in the blanks:-

- A. The product of two negative integers is a _____integer.
- B. If the number of negative integers in a product is odd, then the product is _____integer.
- C. A rearrangement of three or more integers _____their product.
- D. Multiplicative inverse of a non–zero integer is the number _____.
- E. (-6) x (-8) = ____
- F. $a x (b c) = a x b x_{max}$
- G. The product of an _____ is the integer itself.
- H. If we multiply 6 negative integers and 3 positive integers, the sign of the product will be _____.
- I. If (-1) is multiplied twelve times the product will be _____.
- J. If x is the product of 3 negative integers and y is the product of 5 positive integers, then the product of a x b is a _____.

2. Find the value of the following:-

- A. $(-6) \times 0 \times (-48) \times 48$ B. $(-80) \times [10 - 5 - 43 + 98]$
- 3. Determine the integer whose product with -1 is:-
 - A. -30 _____ B. 26 _____ C. 1 D. 0
- 4. Find the following products by suitable rearrangement:-

A. 9 × (–55) × (–6)	B. (-625) × 744 × (-4) × 4
C. (–50) × 125 × (–6) × 11	D. –125 × 10 × 25 × –4

5. Verify and name the property used:-

A. $372 \times 462 - (372) \times (-38) = 372 \times (462 - (-38))$

- B. $(-25 \times 8) \times (-264) = -25 \times [8 \times (-264)]$
- C. (-145) × 195 + (-145) × 5

6. Find the value of the following:-

A. 2245 × 795 – 245 × 795

B.
$$(-378) \times (-36) + (-378) \times (-64)$$

C. 16752 × (-4) + (-16752) × 96

7. Verify the following:-

- A. 28 × [8 + (-5)] = [28 × 8] + [28 × (-5)]
- B. $(-75) \times [(-8) + (-4)] = [(-75) \times (-8)] + [(-75) \times (-4)]$

8. Multiply using suitable properties:-

A. 625 × 84	Β.	[200 × 2543 – 100 × 2543]

C. $52 \times 27 - 52 \times 32$ D. $39 \times (-2) + (-2) \times 10$

9. Find the value of x for following:-

A. $5 \times [(-4) - x] = 5 \times (-4) - 5 \times 10$	B. $2 \times (3 + x) = 2 \times 3 + 6 \times 2$
B. $x \times [(-5) + 8] = 9 \times (-5) + 9 \times 8$	D. $3 \times (0 - x) = 3 \times 0 - 3 \times 3$