

Exercise 1B

## Solution 01

### Answer:

(i) 
$$16 \times 9 = 144$$

(ii) 
$$18 \times (-6) = -(18 \times 6) = -108$$

(iii) 
$$36 \times (-11) = -(36 \times 11) = -396$$

(iv) 
$$(-28) \times 14 = -(28 \times 14) = -392$$

$$(v) (-53) \times 18 = -(53 \times 18) = -954$$

(vi) 
$$(-35) \times 0 = 0$$

(vii) 
$$0 \times (-23) = 0$$

(viii) 
$$(-16) \times (-12) = 192$$

$$(ix) (-105) \times (-8) = 840$$

$$(x)(-36) \times (-50) = 1800$$

$$(xi)(-28) \times (-1) = 28$$

(xii) 
$$25 \times (-11) = -(25 \times 11) = -275$$

# Solution 02

## Answer:

(i) 
$$3 \times 4 \times (-5) = (12) \times (-5) = -60$$

(ii) 
$$2 \times (-5) \times (-6) = (-10) \times (-6) = 60$$

(iii) 
$$(-5) \times (-8) \times (-3) = (-5) \times (24) = -120$$

(iv) 
$$(-6) \times 6 \times (-10) = 6 \times (60) = 360$$

(v) 
$$7 \times (-8) \times 3 = 21 \times (-8) = -168$$

(vi) 
$$(-7) \times (-3) \times 4 = 21 \times 4 = 84$$

# Solution 03

- (i) Since the number of negative integers in the product is even, the product will be positive. (4)  $\times$  (5)  $\times$  (8)  $\times$  (10) = 1600
- (ii) Since the number of negative integers in the product is odd, the product will be negative.
   (6) × (5) × (7) × (2) × (3) = -1260
- (iii) Since the number of negative integers in the product is even, the product will be positive. (60)  $\times$  (10)  $\times$  (5)  $\times$  (1) = 3000
- (iv) Since the number of negative integers in the product is odd, the product will be negative.  $-(30) \times (20) \times (5) = -3000$
- (v) Since the number of negative integers in the product is even, the product will be positive.  $(-3)^6$  = 729
- (vi) Since the number of negative integers in the product is odd, the product will be negative.  $(-5)^5 = -3125$
- (vii) Since the number of negative integers in the product is even, the product will be positive.  $\left(-1\right)^{200}$ = 1
- (viii) Since the number of negative integers in the product is odd, the product will be negative.  $(-1)^{171} = -1$

### Solution 04

#### Answer:

Multiplying 90 negative integers will yield a positive sign as the number of integers is even.

Multiplying any two or more positive integers always gives a positive integer.

The product of both (the above two cases) the positive and positive integers is also positive.

The product of both(the above two cases) the positive and negative integers is also positive.

Therefore, the final product will have a positive sign.

#### Solution 05

Multiplying 103 negative integers will yield a negative integer, whereas 65 positive integers will give a positive integer.

The product of a negative integer and a positive integer is a negative integer.

