



Exercise 2.3

**Q1.** Which of the following will not represent zero:

- (a)  $1 + 0$
- (b)  $0 \times 0$
- (c)  $0/2$
- (d)  $10 - 10/2$

**Ans:** (a) [ $1 + 0$  is equal to 1]

**Q2.** If the product of two whole numbers is zero, can we say that one or both of them will be zero? Justify through examples.

**Ans:** Yes, if we multiply any number with zero the resultant product will be zero.

Example:  $2 \times 0 = 0$ ,  $5 \times 0 = 0$ ,  $9 \times 0 = 0$

If both numbers are zero, then the result also be zero.

$$0 \times 0 = 0$$

**Q3.** If the product of two whole number is 1, can we say that one or both of them will be 1? Justify through examples.

**Ans:**

If only one number be 1 then the product cannot be 1.

Examples:  $5 \times 1 = 5$ ,  $4 \times 1 = 4$ ,  $8 \times 1 = 8$

If both number are 1, then the product is 1

$$1 \times 1 = 1$$

**Q4.** Find using distributive property:

(a)  $728 \times 101$

(b)  $5437 \times 1001$

(c)  $824 \times 25$

(d)  $4275 \times 125$

(e)  $504 \times 35$

**Ans:**

(a)  $728 \times 101$

$$= 728 \times (100 + 1)$$

$$= 728 \times 100 + 728 \times 1$$

$$= 72800 + 728$$

$$= 73528$$

(b)  $5437 \times 1001$

$$= 5437 \times (1000 + 1)$$

$$= 5437 \times 1000 + 5437 \times 1$$

$$= 5437000 + 5437$$

$$= 5442437$$

(c)  $824 \times 25$

$$= 824 \times (20 + 5)$$

$$= 824 \times 20 + 824 \times 5$$

$$= 16480 + 4120$$

$$= 20600$$

(d)  $4275 \times 125$

$$= 4275 \times (100 + 20 + 5)$$

$$= 4275 \times 100 + 4275 \times 20 + 4275 \times 5$$

$$= 427500 + 85500 + 21375$$

$$= 534375$$

(e)  $504 \times 35$

$$= (500 + 4) \times 35$$

$$= 500 \times 35 + 4 \times 35$$

$$= 17500 + 140$$

$$= 17640$$

**Q5.** Study the pattern:

$$1 \times 8 + 1 = 9;$$

$$12 \times 8 + 2 = 98;$$

$$123 \times 8 + 3 = 987$$

$$1234 \times 8 + 4 = 9876;$$

$$12345 \times 8 + 5 = 98765$$

Write the next two steps. Can you say how the pattern works?

**Ans:**

$$123456 \times 8 + 6 = 987654$$

$$1234567 \times 8 + 7 = 9876543$$

Pattern works like this:

$$1 \times 8 + 1 = 9$$

$$12 \times 8 + 2 = 98$$

$$123 \times 8 + 3 = 987$$

$$1234 \times 8 + 4 = 9876$$

$$12345 \times 8 + 5 = 98765$$

$$123456 \times 8 + 6 = 987654$$

$$1234567 \times 8 + 7 = 9876543$$

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