Operations on Whole Numbers Ex 4.5 Q1

Answer :

(i) 10th square number: A square number can easily be remembered by the following rule:

n^{th} square number = n^2

∴ 10th square number = 10^2 = 100

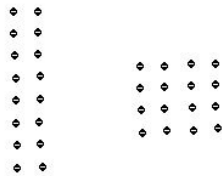(ii) 6th triangular number: A triangular number can easily be remembered by the following rule:

n^{th} triangular number = $\frac{n \times (n+1)}{2}$

∴ 6th triangular number = $\frac{6 \times (6+1)}{2}$ = 21

Operations on Whole Numbers Ex 4.5 Q2

Answer :

(i) Yes, a rectangular number can also be a square number; for example, 16 is a square number and also a rectangular number.

(ii) Yes, there exists only one triangular number that is both a triangular number and a square number, and that number is 1.

Operations on Whole Numbers Ex 4.5 Q3

Answer :

$1 \times 5 = 5 \quad (5 - 1 = 4)$

$2 \times 6 = 12 \quad (6 - 2 = 4)$

$3 \times 7 = 21 \quad (7 - 3 = 4)$

$4 \times 8 = 32 \quad (8 - 4 = 4)$

Operations on Whole Numbers Ex 4.5 Q4

Answer :

$$9 \times 9 + 7 \qquad = 88$$
$$98 \times 9 + 6 \qquad = 888$$
$$987 \times 9 + 5 \qquad = 8888$$
$$9876 \times 9 + 4 \qquad = \underline{88888}$$
$$98765 \times 9 + 3 \qquad = \underline{888888}$$
$$987654 \times 9 + 2 \qquad = \underline{8888888}$$
$$9876543 \times 9 + 1 \qquad = \underline{88888888}$$

********** END *********