



Playing with Numbers Ex 2.9 Q1

Answer :

(i) Prime factorisation of $48 = 2 \times 2 \times 2 \times 2 \times 3$

Prime factorisation of $60 = 2 \times 2 \times 3 \times 5$

\therefore Required LCM $= 2 \times 2 \times 2 \times 2 \times 3 \times 5 = 240$

(ii) Prime factorisation of $42 = 2 \times 3 \times 7$

Prime factorisation of $63 = 3 \times 3 \times 7$

\therefore Required LCM $= 2 \times 3 \times 3 \times 7 = 126$

(iii) Prime factorisation of $18 = 2 \times 3 \times 3$

Prime factorisation of $17 = 17$

\therefore Required LCM $= 2 \times 3 \times 3 \times 17 = 306$

(iv) Prime factorisation of $15 = 3 \times 5$

Prime factorisation of $30 = 2 \times 3 \times 5$

Prime factorisation of $90 = 2 \times 3 \times 3 \times 5$

\therefore Required LCM $= 2 \times 3 \times 3 \times 5 = 90$

(v) Prime factorisation of $56 = 2 \times 2 \times 2 \times 7$

Prime factorisation of $65 = 5 \times 13$

Prime factorisation of $85 = 5 \times 17$

\therefore Required LCM $= 2 \times 2 \times 2 \times 5 \times 7 \times 13 \times 17 = 61,880$

(vi) Prime factorisation of $180 = 2 \times 2 \times 3 \times 3 \times 5$

Prime factorisation of $384 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3$

Prime factorisation of $144 = 2 \times 2 \times 2 \times 2 \times 3 \times 3$

\therefore Required LCM $= 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5 = 5,760$

(vii) Prime factorisation of $108 = 2 \times 2 \times 3 \times 3 \times 3$

Prime factorisation of $135 = 3 \times 3 \times 3 \times 5$

Prime factorisation of $162 = 2 \times 3 \times 3 \times 3 \times 3$

\therefore Required LCM $= 2 \times 2 \times 3 \times 3 \times 3 \times 3 \times 5 = 1,620$

(viii) Prime factorisation of $28 = 2 \times 2 \times 7$

Prime factorisation of $36 = 2 \times 2 \times 3 \times 3$

Prime factorisation of $45 = 3 \times 3 \times 5$

Prime factorisation of $60 = 2 \times 2 \times 3 \times 5$

\therefore Required LCM $= 2 \times 2 \times 3 \times 3 \times 5 \times 7 = 1,260$

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