

QUESTION: Find the product of all the factors of 1440.

OPTIONS:

- a) 1440^9
- b) 1440^{36}
- c) 1440^{18}
- d) 1440^{72}

SOLUTION: We know that $1440 = 2^5 \times 3^2 \times 5^1$
Total number of factor of 1440 = $6 \times 3 \times 2 = 36$
Hence the product of all factors of 1440 $^{36/2} = 1440^{18}$