Subject: Maths Class: 8 Topic: Exponents and Powers

Watch video #8 and 9 and solve the following exercise:

## EXERCISE 3.3

Use **Cordova Smart Class Software** on the **smart board** in class to do Exercise.

1. What would be the possible ones digit of the square root of each of the following natural numbers?
   (*i*) 6561 (*ii*) 24336 (*iii*) 16129 (*iv*) 160801
2. Find the square root of the following by repeated subtraction method.
   (*i*) 144 (*ii*) 289 (*iii*) 169
3. Find the square root by prime factorisation method.
   (*i*) 676 (*ii*) 1024 (*iii*) 27225 (*iv*) 7744
   (*v*) 9604 (*vi*) 15625 (*vii*) 390625 (*viii*) 9801

## EXERCISE 3.4

Use **Cordova Smart Class Software** on the **smart board** in class to do Exercise.

1. Find the smallest square number which is divisible by each of the numbers 6, 9 and 15.
2. Find the smallest number by which 5392 must be divided so that the quotient is a perfect square. Find the square root of the quotient.
3. The product of two numbers is 2197. If one of the numbers is 13 times the other number, find the numbers.
4. A rectangular field is 81 m long and 49 m wide. A square field has the same area as that of the rectangular field. Find the side of the square field.
5. A school collected ₹ 11025 as fees from its students. If each student paid as much money as there were students in the school, how many students were there in the school?
6. Find the smallest number by which 27783 must be multiplied so that it becomes a perfect square.
7. The product of two numbers is 4046 and their quotient is $\frac{7}{2}$. Find the numbers.
8. For each of the following numbers, find the smallest number by which it should be divided so as to get a perfect square. Also, find the square root of the square number so obtained.
   (*i*) 2925 (*ii*) 2800 (*iii*) 2645