To Find the Square Root of Any Perfect Square Number by Repeated Subtraction

A. Choose the correct answer:

1. The method of repeated subtraction for finding the square root works only for.

a) Any number
b) Prime numbers
c) Perfect squares
d) Even numbers

2. How many times must 1 be subtracted from 1 to reach 0.

a) 0
b) 1
c) 2
d) 3

3. The number of subtractions needed to find the square root of 16 by repeated subtraction is.

a) 3
b) 4
c) 5
d) 6

4. In repeated subtraction method, we subtract.

a) Even numbers
b) Odd numbers
c) Prime numbers
d) Multiples of 5

5. If 49 is repeatedly subtracted by consecutive odd numbers, how many steps will it take to reach zero.

a) 6
b) 7
c) 8
d) 9

B. Write the Missing Terms to Complete the Sentences:

1. Repeated subtraction method applies only to _____ square numbers.
2. The numbers subtracted each time are consecutive _____ numbers.
3. The square root of a number is equal to the number of _____ required to reduce it to zero.
4. First odd number to subtract in the repeated subtraction method is always _____.
5. The repeated subtraction method is not suitable for numbers that are not _____ squares.

C. Figure out the answers to these questions:

1. Find the square root of 25 using repeated subtraction method.
2. Show the steps of finding the square root of 36 by repeated subtraction.
3. If 81 is repeatedly subtracted by odd numbers, find the number of steps needed.
4. Explain why repeated subtraction method fails for non-perfect squares like 20.
5. Find the square root of 100 using repeated subtraction and list all the numbers subtracted.

D. Mark each sentence with a True (✓) or False (✗):

1. In repeated subtraction method, we subtract even numbers from the given number. _____
2. The number of steps in repeated subtraction gives the square root of the number. _____
3. The repeated subtraction method works for all integers. _____
4. While using repeated subtraction method, the number must become zero at the end. _____
5. Square root of 49 by repeated subtraction method needs 7 steps. _____

E. Challenge yourself with these questions:

1. Find the square root of 9 by repeated subtraction and show all steps.
2. If a number requires 11 subtractions of consecutive odd numbers to reach zero, what is the number.
3. How many odd numbers must be subtracted to find the square root of 121.
4. Show the repeated subtraction steps for finding the square root of 64.
5. Explain why the repeated subtraction method is not preferred for large numbers