

DISCRETE

December 8, 2023

DISCRETE CBSE-10

- Which of the following is not an A.P.?
(A) $-1.2, 0.8, 2.8, \dots$
(B) $3, 3 + \sqrt{2}, 3 + 2\sqrt{2}, 3 + 3\sqrt{2}, \dots$
(C) $\frac{4}{3}, \frac{7}{3}, \frac{9}{3}, \frac{12}{3}, \dots$
(D) $\frac{-1}{5}, \frac{-2}{5}, \frac{-3}{5}, \dots$
- Find the sum of the first 100 natural numbers.
- The LCM of two numbers is 182 and their HCF is 13. If one of the numbers is 26, find the other.
- Show that $5 + 2\sqrt{7}$ is an irrational number, where $\sqrt{7}$ is given to be an irrational number.
- Find the Sum:
$$(-5), +(-8), (-11) + \dots + (-230) \quad (1)$$
- Use Euclid Division Lemma to show that the square of any positive integer is either of the form $3q$ or $3q + 1$ for some integer q .