Number Series

①. check → odd, even, Prime

②. check → Square, Square root, Cube, cube root.
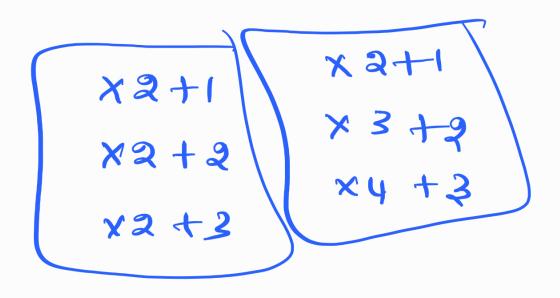
③. check → differences between the Series.

diff → small ⟹ add / sub

diff → high ⟹ mul / div

④. create a pattern between 1st & 2nd nos.

Check → same pattern for

2nd & 3 nos.

check → 3rd & 4th nos.

$\times 2 + 1$

$\times 2 + 2$

$\times 2 + 3$

$\times 2 + 1$

$\times 3 + 2$

$\times 4 + 3$

① 7, 10, 8, 11, 9, 12, ? ⑩

+3   -2   +3   -2   +3   -2

② 14, 28, 20, 40, 32, 64, ? 56

$\times 2$ -8 $\times 2$ -8 $\times 2$ -8

+6   +12

③. $8, 6, 9, 23, 87, ?$ 429

$8 \times 1 = 8 - 2 = 6$

$6 \times 2 = 12 - 3 = 9$

$9 \times 3 = 27 - 4 = 23$

$23 \times 4 = 92 - 5 = 87$

$87 \times 5 = 435 - 6 = \boxed{429}$