

1
A₁ 2, -2, -6, -10
 $d = -2 - 2$
 $= -4$ A₁ - B₄

A₂
 $a_n = 0$
 $a + (n-1)d = 0$
 $-18 + 9d = 0$
 $9d = 18$
 $d = 2$ A₂ - B₅

A₃ $a_{10} = 6$
 $a + 9d = 6$
 $0 + 9d = 6$
 $d = \frac{6}{9} = \frac{2}{3}$ A₃ - B₁

A₄
 $a_4 - a_2 = 3 - 13$
 $a + 3d - a - d = 3 - 13$
 $2d = -10$
 $d = \frac{-10}{2}$
 $\Rightarrow d = -5$ A₄ - B₂

②i $0, \frac{1}{4}, \frac{1}{2}, \frac{3}{4}, \dots$
 $a_2 - a_1 = \frac{1}{4} - 0$
 $= \frac{1}{4}$

$a_3 - a_2 = \frac{1}{2} - \frac{1}{4}$
 $= \frac{2-1}{4}$
 $= \frac{1}{4}$

$a_4 - a_3 = \frac{3}{4} - \frac{1}{2}$
 $= \frac{3-2}{4}$
 $= \frac{1}{4}$

\therefore AP
 Next 3 terms are
 $1, \frac{5}{4}, \frac{3}{2}$

2①① $5, \frac{14}{3}, \frac{13}{3}, 4, \dots$
 $a_2 - a_1 = \frac{14}{3} - 5$
 $= \frac{14-15}{3}$
 $= -\frac{1}{3}$

$a_3 - a_2 = \frac{13}{3} - \frac{14}{3}$
 $= -\frac{1}{3}$

$a_4 - a_3 = 4 - \frac{13}{3}$
 $= -\frac{1}{3}$

\therefore AP
 Next 3 terms are
 $\frac{11}{3}, \frac{10}{3}, 3$