

Home assignment Arithmetic Progression

1) ~~$a_n = -4n + 15$~~
 ~~$a_n(n+1) \div 2 = 15$~~

1) $a_n = -4n + 15$

Now putting the value of $a_1 = 1 = -4(1) + 15$

$a_2 = 2 = -4(2) + 15$

$a_3 = 3 = -4(3) + 15$

$a_4 = 4 = -4(4) + 15$

$\Rightarrow a_1 = 11, a_2 = 7, a_3 = 3, a_4 = -1$

• So AP 11, 7, 3, -1

2) $a_1 = 6 + 11 = 17$

$a_2 = (6 \times 2) + 11 = 23$

$d = 23 - 17 = 6$

3) $a_n = 9, 7, 5, \dots = 15, 12, 9, \dots$

$\Rightarrow 9 + (n-1)2 = 15 + (n-1)3$

$9 + 2n - 2 = 15 + 3n - 3$

$9 + 2 = 15 + n$

$n = 10 - 15 = -5$

4) $a_{10} = 1 + (9)2.5$

$\Rightarrow 22.5 + 1$

$\Rightarrow 23.5$

$$6) S_{10} = \sim 5 [1 + 10]$$

$$S_{10} = 55$$