

ANSWER WORKSHEET 3

1. (i) $T_n = a + (n-1) d$

(ii) **14, 17**

2. (i) 0, 10, 20, 30, 40,

Rule : Add 10 to each terms

Next two terms are 50 and 60

(ii) -22, -18, -14, -10, -6,...

Rule : Add 4 to each terms

Next two terms are -2 and 2


$$-6 + 4 = -2$$

$$-2 + 4 = 2$$

(iii) 100, 98, 95, 93, 90,

Rule : Subtract 2 and 3 simultaneously from each terms

Next two terms are 88 and 85


$$90 - 2 = 88$$

$$88 - 3 = 85$$

3. Given $T_n = 4n + 7$

(i) 4th term = $T_4 = (4 \times 4) + 7$

$$= 16 + 7$$

$$= \mathbf{23}$$

(ii) sum of 4th and 7th term = $T_4 + T_7$

$$T_4 = 23$$

$$T_7 = (4 \times 7) + 7$$

$$= 28 + 7 = 35$$

Therefore, $T_4 + T_7 = 23 + 35$

$$= 58$$

4. (i)

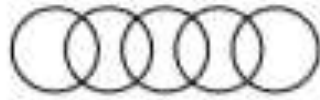


Figure 5



Figure 6

(ii)

Figure Number	No : of intersection(s) between the circles
1	0
2	1
3	2
4	3
5	4
6	5
.	.
.	.
.	.
n	$(n - 1)$

(iii) We have for n^{th} figure, $(n - 1)$ intersections

Therefore for 28 intersections, the value of n is

$$n - 1 = 28$$

$$n = 28 + 1$$

$$= 29$$

