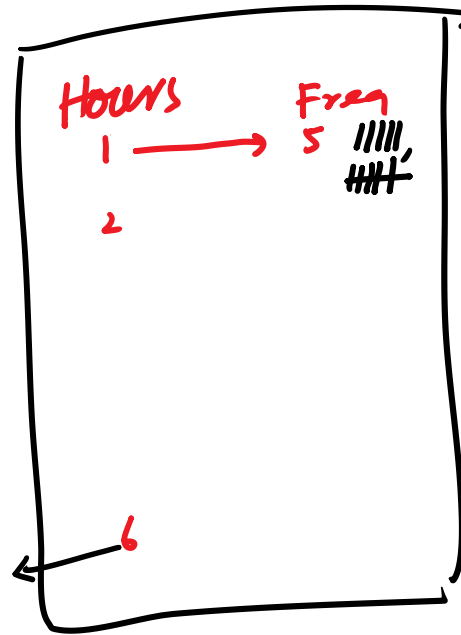
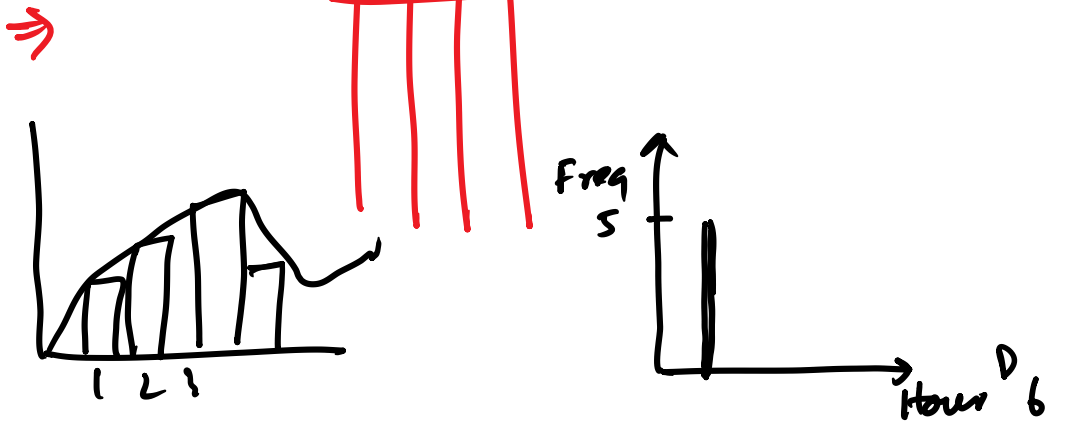
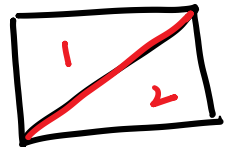
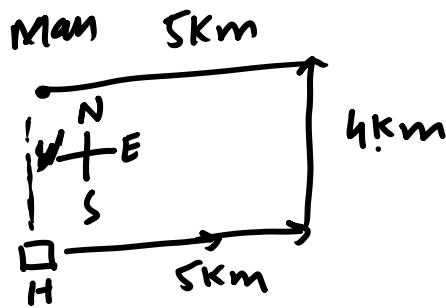


eg ① A man starting from his home walks 5km towards East, and then he turns left and goes 4km. At last he turns left and walks 5km. Now find the distance b/w the man and his home and also find at which direction.

Sol: =

4km, South

Note: ✓ The home lies at 4km in the South.



# Triangles Counting!

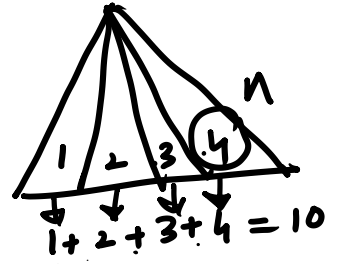
①



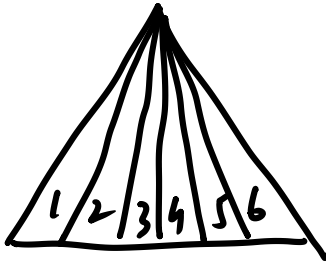
⇒



$$1+2=3$$



$$\text{Formula} = \frac{n(n+1)}{2} = \frac{4(4+1)}{2} = 2(5) = 10$$



$n=6$  ,

$$\frac{6(7)}{2}$$

= 21

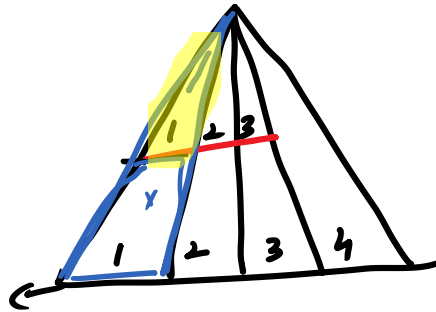
$$1+2+3+4+5+6 = 21$$

②

Base(2)

+

Base(1)



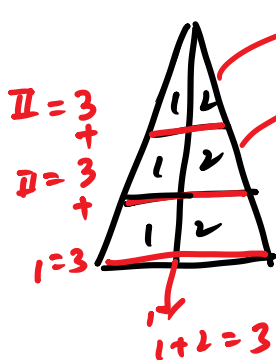
$$1+2+3 = 6$$

+

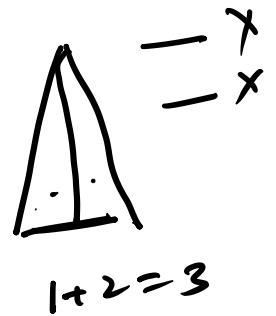
$$1+2+3+4 = 10$$

$$\underline{16}$$

③

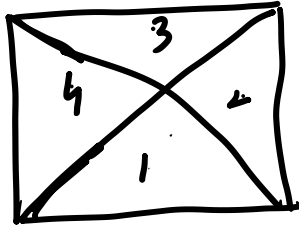


$$\begin{array}{r} 3 \\ + 3 \\ + 3 \\ \hline 9 \end{array}$$



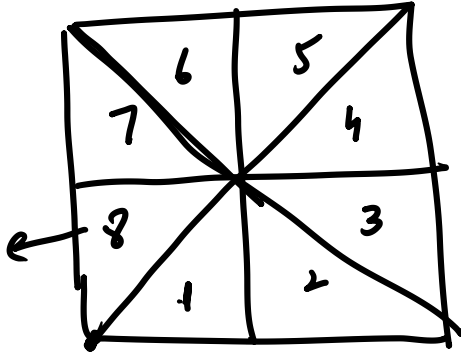
④

✓



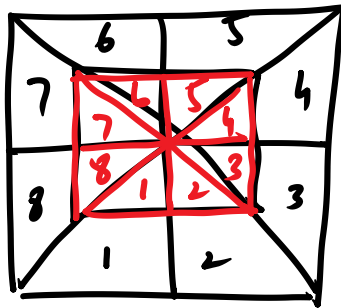
$$\begin{aligned} \text{Triangles} &= n \times 2 \\ &= 4 \times 2 = 8 \end{aligned}$$

n

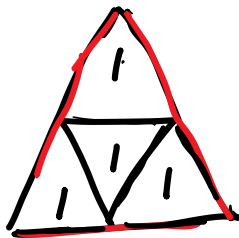


$$\begin{aligned} n &= 8 \\ &= n \times 2 = 8 \times 2 \\ &= 16 \end{aligned}$$

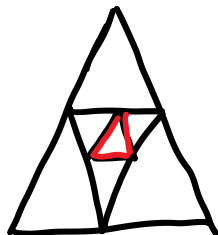
$$\begin{array}{r} 8 \times 2 = 16 \\ + \\ 8 \times 2 = 16 \\ \hline 32 \end{array}$$



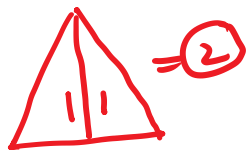
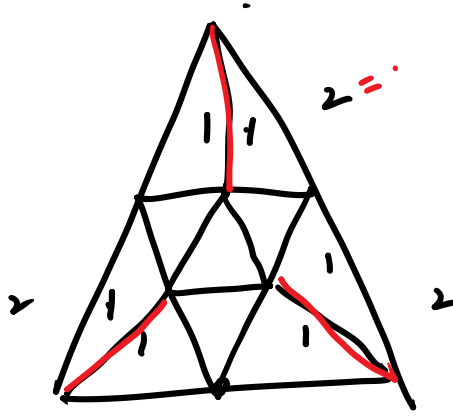
⇒



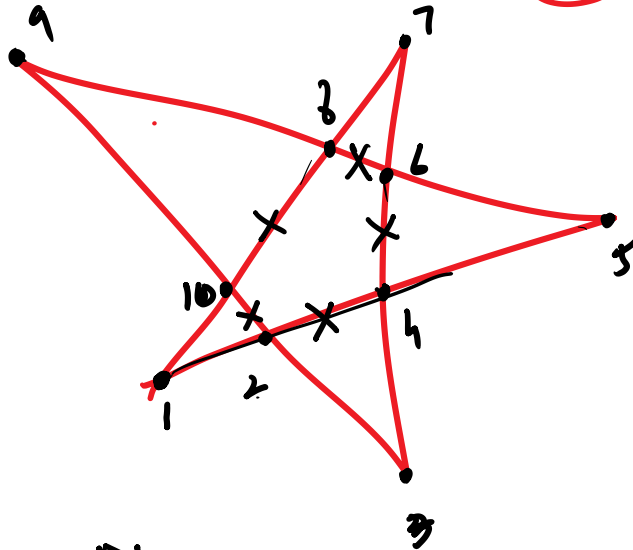
$$\begin{array}{l} \textcircled{h} (1+h+1) \\ + \\ 1 \\ \hline 5 \end{array}$$



$$\begin{array}{l} 1 \\ 4 \\ 4 \\ \hline 9 \end{array}$$



$$9 + 2 + 2 + 2 = 15$$



X insection line

Star:

10

$$\Delta_1 = 1, 2, 10$$

$$\Delta_4 = 3, 7, 10$$

$$\Delta_2 = 1, 5, 8$$

$$\Delta_5 = 5, 4, 6$$

$$\Delta_3 = 2, 3, 4$$

$$\Delta_6 = 2, 5, 9$$

$$\begin{aligned} \checkmark \\ 26 - 1 &= 25 \\ 26 + 1 &= \underline{27} \leftarrow \end{aligned}$$

$$\begin{aligned} 10 - 25 &= \\ +1 \quad +1 & \\ 11 - 26 & \\ + \quad +1 & \checkmark \\ 12 - 1 &= 11 \end{aligned}$$