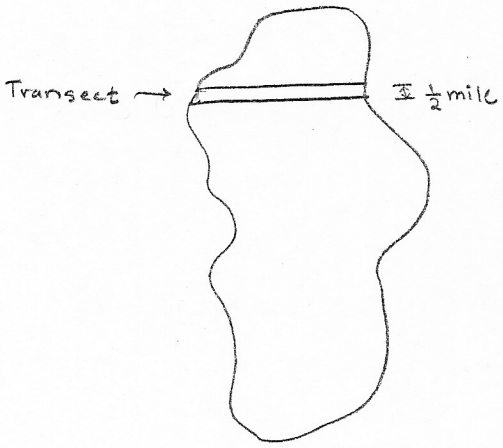

EX: Duck Population

$N = 140$

$n = 14$

y_i = Number of ducks in i^{th} transect

x_i = Length of i^{th} transect (miles)

$\sum_{i=1}^{N} x_i = 2606$

Transect	1	2	3	4	5	6	7	8	9	10	11	12	13	14
x_i	6.2	12.4	23.0	22.8	20.7	24.8	22.8	18.6	22.8	18.6	16.6	18.6	16.6	18.6
y_i	3	3	30	3	15	16	4	114	24	48	0	8	0	27

$$\sum_{i=1}^{n} x_i = 263.1$$

$$\sum_{i=1}^{n} y_i = 295.$$

$$\sum_{i=1}^{n} x_i^2 = 5259.21$$

$$\sum_{i=1}^{n} y_i^2 = 18093.$$

$$\sum_{i=1}^{n} x_i y_i = 5824.1$$