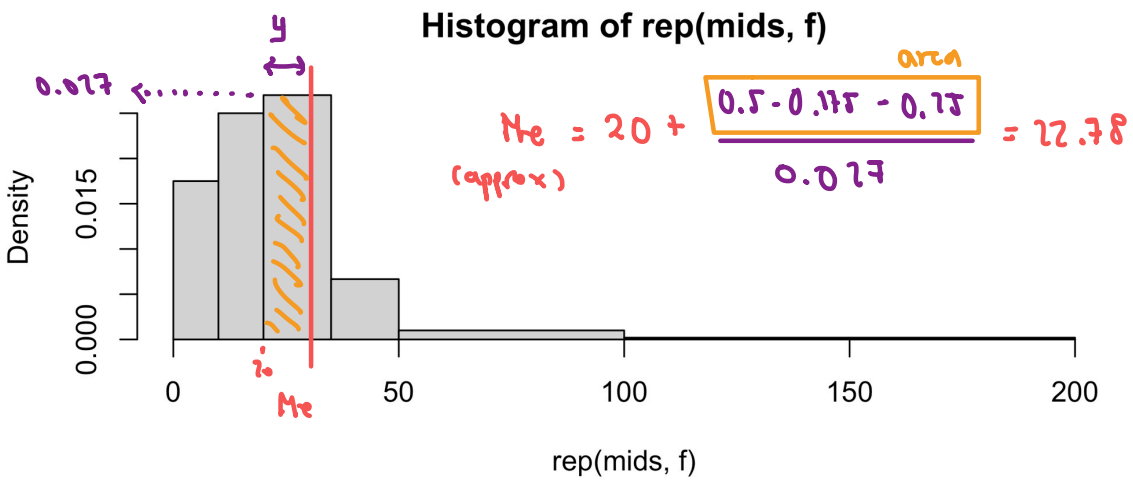
ESERCIZIO 3, ESAME 2

Salary Band	[0,10)	[10,20)	[20,35]	[35,50]	[50,100]	[100,200]
Number of Individuals	35	50	81	20	10	4
Relative Frequencies	0.175	0.250	0.405	0.100	0.050	0.020
Frequency Densities	0.0175	0.025	0.027	0.00667	0.001	0.0002
Mid-Points	5	15	27.5	42.5	75	150

Calcolazione di approximated median

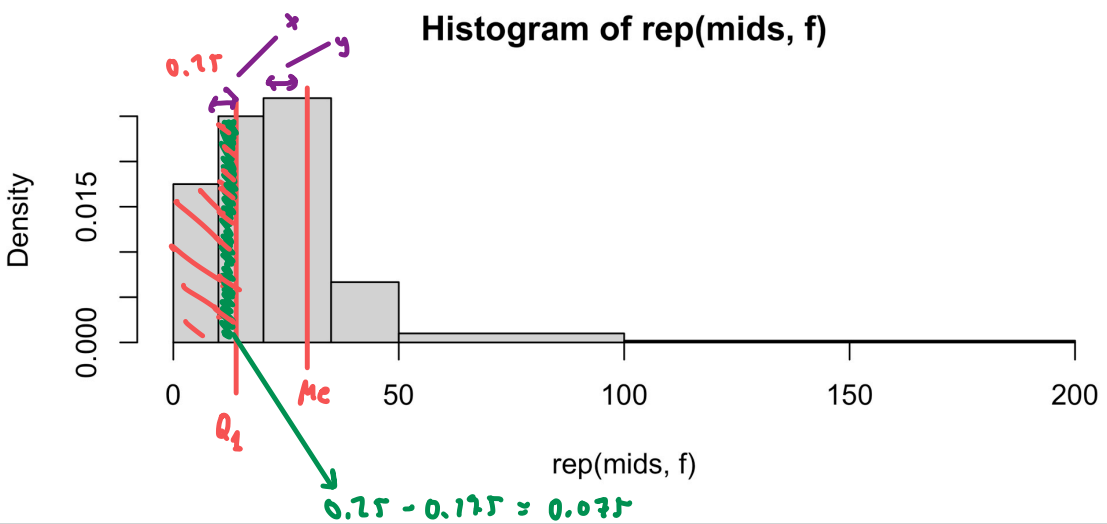


$$Me \approx 20 + \frac{0.5 - 0.175 - 0.15}{0.027} = 22.78$$

area

EXERCISE 3, EXERCISE 2

Salary Band	[0,10)	[10,20)	[20,35]	[35,50]	[50,100]	[100,200]
Number of Individuals	35	50	81	20	10	4
Relative Frequencies	0.175	0.250	0.405	0.100	0.050	0.020
Frequency Densities	0.0175	0.025	0.027	0.00667	0.001	0.0002
Mid-Points	5	15	27.5	42.5	75	150



Calculation of 1st QUARTILE (approximation)

The red striped area should be 0.25 by definition of Q_1.

Hence the green area should be $0.25 - 0.175 = 0.075$

Hence the basis of the green rectangle, called x (↳ area of first bar) should be $\frac{0.075}{0.025} = 3$.

Hence $Q_1 = 10 + 3 = 13$.

Similarly Median = 22.78 and $Q_3 = 32.04$