

DESIGN AND DATA ANALYSIS IN PSYCHOLOGY I
MARCH 2018. PARTIAL 1

INT	X_i	f_i	$\frac{f_i}{n}$	%	F_i	CRF	X_i/i
0-4	2	45	0.3		45	0.3	90
5-9	7	50	0.33		95	0.63	350
10-14	12	25			120		300
15-19	17	20	0.13		140	0.93	340
20-24	22	10			150		220
		150					1300

$n_{Mo} \rightarrow 5-9$
 $Medn \rightarrow$
 $P_{10} \rightarrow 10-14$

$$\textcircled{7} \text{ Medn} = L_i + \frac{1}{f_i} \left(\frac{n}{2} - F_i \right) = 4.5 + \frac{5}{50} (75 - 45) = 4.5 + 0.1 \cdot 30 = 7.5$$

$$n/2 = 150/2 = 75$$

$$I = \text{max} - \text{min} = 9.5 - 4.5 = 5$$

$$\textcircled{8} \bar{X} = \frac{\sum f_i X_i}{n} = \frac{1300}{150} = 8.67$$

$$\textcircled{10} P_{80} = L_i + \frac{1}{f_i} \left(\frac{i \cdot n}{k} - F_i \right) = 9.5 + \frac{5}{25} (120 - 95) = 9.5 + 0.2(25) = 14.5$$

$$\frac{i \cdot n}{k} = \frac{80 \cdot 150}{100} = 120$$