Lab #3: Frequency Distributions & Graphing Key

1) Ungrouped frequency distribution of the number of fish caught by the class last weekend.

X	f	p	%	Cf	Cp	C%
15	6	.24	24	N=25	1.00	100
14	0	.00	0	19	.76	76
13	1	.04	4	19	.76	76
12	4	.16	16	18	.72	72
11	3	.12	12	14	.56	56
10	3	.12	12	11	.44	44
9	3	.12	12	8	.32	32
8	5	.20	20	5	.20	20
	Σf=25=N	**Σp=1.00**	**Σ%=100**			

2) Grouped frequency distribution of the grades on an exam.
Range= X_H-X_L+1 = 50-19+1 = 32

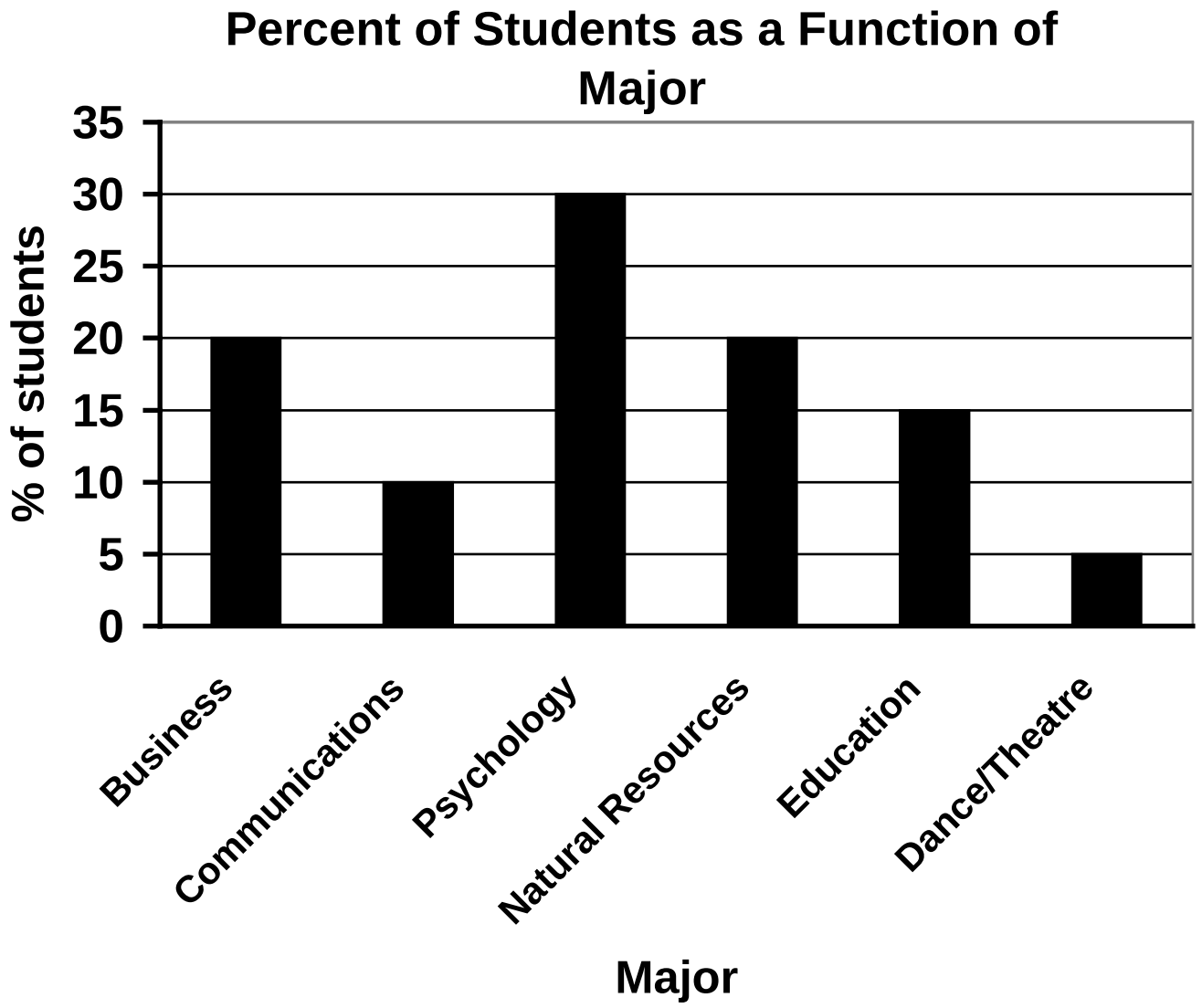
$\#\text{Groups} = \frac{R}{i}$, and should be between 10 and 20, so

$\frac{32}{7} = 4.57$, $\frac{32}{5} = 6.4$, and $\frac{32}{3} = 10.67$

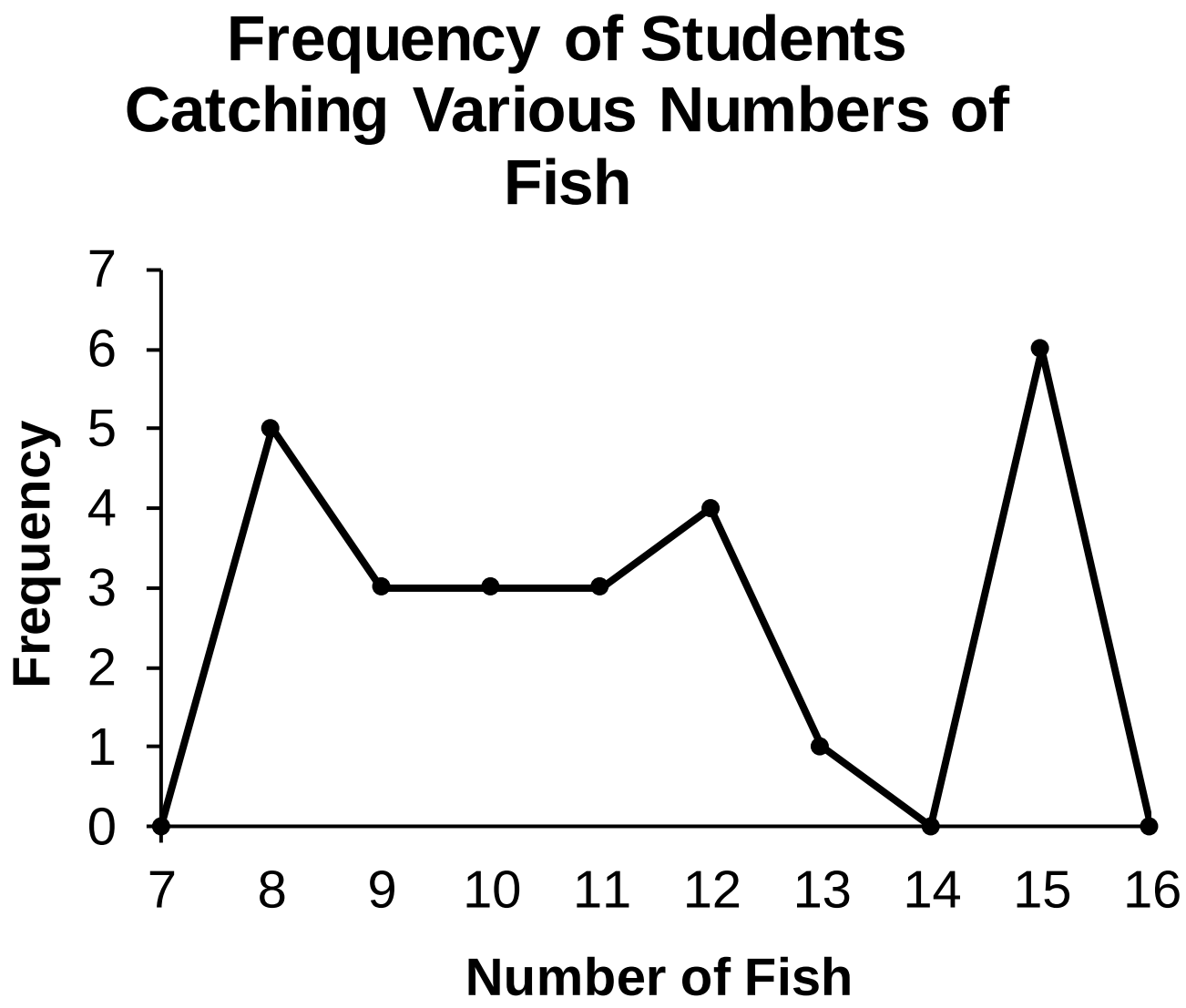
Thus, we will use i=3 and 18 will be X_L (because it is divisible by 3).

Interval	Exact Limits	Midpoint	f	%	Cf	C%
48-50	47.5-50.5	49	5	12	N=40	100
45-47	44.5-47.5	46	4	10	35	88
42-44	41.5-44.5	43	2	5	31	78
39-41	38.5-41.5	40	3	8	29	72
36-38	35.5-38.5	37	3	8	26	65
33-35	32.5-35.5	34	2	5	23	58
30-32	29.5-32.5	31	3	8	21	52
27-29	26.5-29.5	28	6	15	18	45
24-26	23.5-26.5	25	5	12	12	30
21-23	20.5-23.5	22	4	10	7	18
18-20	17.5-20.5	19	3	8	3	8
			Σf=40	**Σ%=101**		

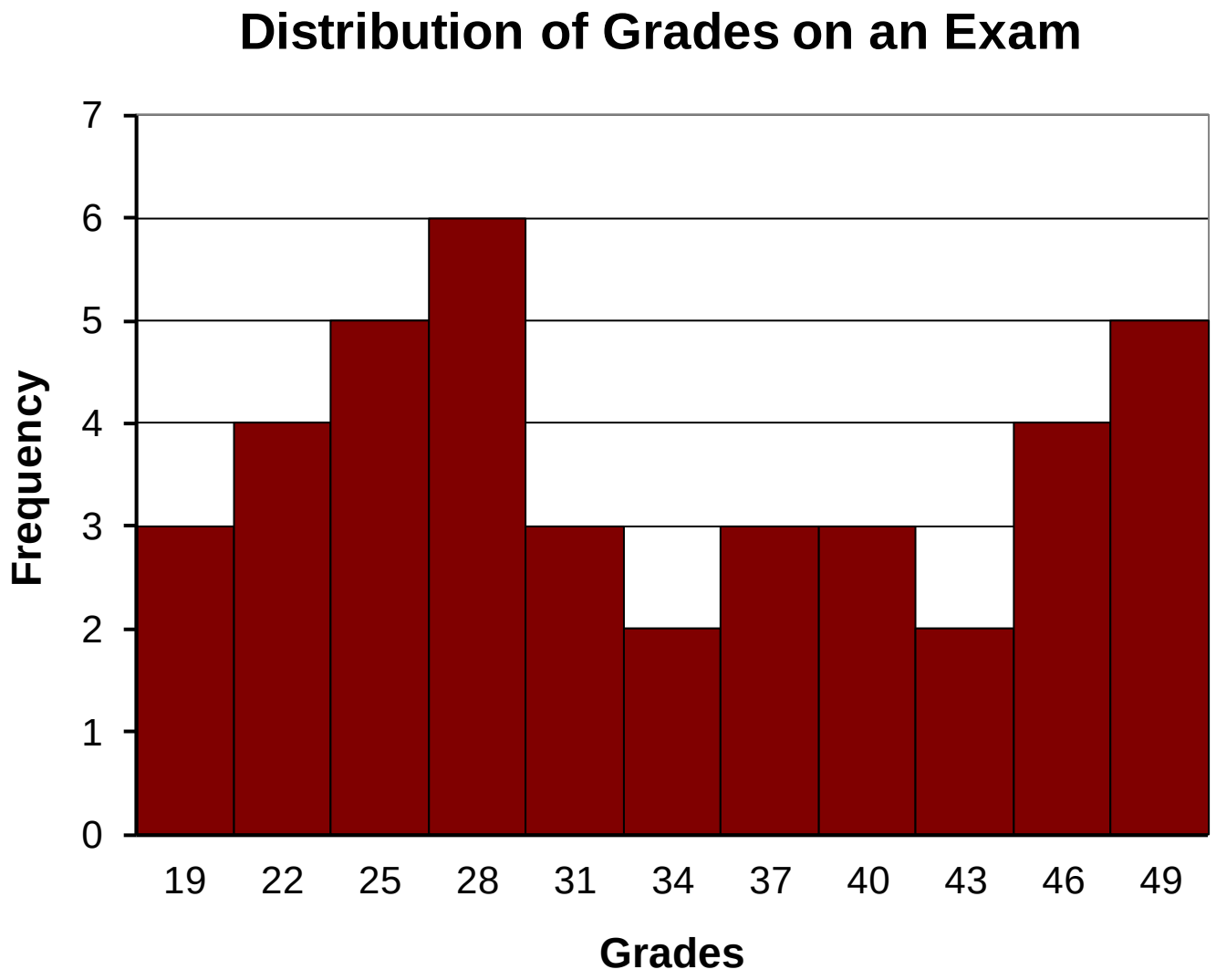
3) Appropriate graph for the data (Bar Graph)



4) Frequency Polygon



5) a. Histogram



5) b. Frequency Polygon