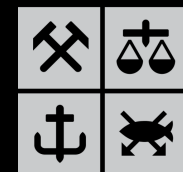


SUMMARIZING DATA USING TABLES



NHH
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GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency
A	32
B	75
C	125
D	112
E	43
F	13

Frequency distribution

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Relative frequency
A	32	0.08
B	75	0.18
C	125	0.31
D	112	0.28
E	43	0.11
F	13	0.03

Frequency distribution

$$\text{Relative Frequency}_i = \frac{\text{Frequency}_i}{\sum_{j=1}^n \text{Frequency}_j}$$

$$\text{Relative Frequency}_C = \frac{125}{32 + 75 + \dots + 13} = 0.31$$

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Relative frequency
A	32	0.08
B	75	0.18
C	125	0.31
D	112	0.28
E	43	0.11
F	13	0.03

Frequency distribution

$$\text{Relative Frequency}_i = \frac{\text{Frequency}_i}{\sum_{j=1}^n \text{Frequency}_j}$$

$$\text{Relative Frequency}_C = \frac{125}{32 + 75 + \dots + 13} = 0.31$$

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Relative frequency	Percentage
A	32	0.08	8.00 %
B	75	0.18	18.8 %
C	125	0.31	31.3 %
D	112	0.28	28.0 %
E	43	0.11	10.8 %
F	13	0.03	3.25 %

Frequency distribution as a percentage

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Cumulative frequency
A	32	32
B	75	107
C	125	232
D	112	344
E	43	287
F	13	400

Cumulative distribution:

$$\text{Cumulative Frequency}_i = \sum_{j=1}^i \text{Frequency}_j$$

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Cumulative frequency
A	32	32
B	75	107
C	125	232
D	112	344
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Cumulative distribution:

$$\text{Cumulative Frequency}_i = \sum_{j=1}^i \text{Frequency}_j$$

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Cumulative frequency
A	32	32
B	75	107
C	125	232
D	112	344
E	43	287
F	13	400

Cumulative distribution:

$$\text{Cumulative Frequency}_i = \sum_{j=1}^i \text{Frequency}_j$$

$$\text{Cumulative Frequency}_C = 32 + 75 + 125 = 232$$

GRADE DISTRIBUTION FOR A STATISTICS COURSE



Grade	Frequency	Cumulative frequency	Cumulative Percentage
A	32	32	8.00 %
B	75	107	26.8 %
C	125	232	58.0 %
D	112	344	86.0 %
E	43	287	96.8 %
F	13	400	100 %

Cumulative percentage:

$$\text{Cumulative Frequency}_i = \sum_{j=1}^i \text{Frequency}_j$$

GRADE DISTRIBUTION FOR A STATISTICS COURSE



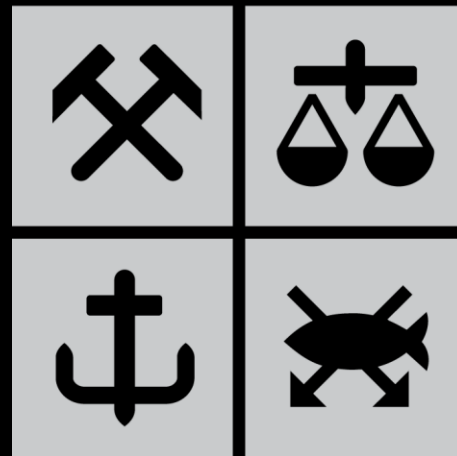
Grade	Relative frequency (%)	Cumulative frequency (%)
A		8.00 %
B	18.8 %	26.8 %
C		58.0 %
D		86.0 %
E		96.8 %
F		100 %

- What proportion of the students got B?
 - $26.8\% - 8\% = 18.8\%$
- What proportion of the students got a grade below C?
 - $100\% - 58\% = 42\%$
- What proportion of the students got a grade between E and C?
 - $96.8\% - 26.8\% = 70\%$

WHAT MAKES A GOOD TABLE

- Clear purpose
- Summarize information
- Readable
- Not too large
- Include unit / scale

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