estudiantes matematicas

	school	sex	age	address	Pstatus	guardian	traveltime	studytime	failures	paid	internet	health	absences	G1	G2	G3
0	GP	F	18	U	A	mother	2	2	0	no	no	3	6	5	6	6
1	GP	F	17	U	T	father	1	2	0	no	yes	3	4	5	5	6
2	GP	F	15	U	T	mother	1	2	3	yes	yes	3	10	7	8	10
3	GP	F	15	U	T	mother	1	3	0	yes	yes	5	2	15	14	15
4	GP	F	16	U	T	father	1	2	0	yes	no	5	4	6	10	10
..	...	..	...	...	...	...	...	...	...	...	...	...	...	..	..	..
390	MS	M	20	U	A	other	1	2	2	yes	no	4	11	9	9	9
391	MS	M	17	U	T	mother	2	1	0	no	yes	2	3	14	16	16
392	MS	M	21	R	T	other	1	1	3	no	no	3	3	10	8	7
393	MS	M	18	R	T	mother	3	1	0	no	yes	5	0	11	12	10
394	MS	M	19	U	T	father	1	1	0	no	yes	5	5	8	9	9

[395 rows x 16 columns]

Verificar valores NaN matematicas

school   0

sex   0

age   0

address   0

famsize   0

Pstatus   0

```
Medu        0
Fedu        0
Mjob        0
Fjob        0
reason      0
guardian    0
traveltime  0
studytime   0
failures    0
schoolsup   0
famsup      0
paid        0
activities  0
nursery     0
higher      0
internet    0
romantic    0
famrel      0
freetime    0
goout       0
Dalc        0
Walc        0
health      0
absences    0
G1          0
G2          0
G3          0
dtype: int64
```

estudiantes portugues

	school	sex	age	address	Pstatus	guardian	traveltime	studytime	failures	paid	internet	health	absences	G1	G2	G3
0	GP	F	18	U	A	mother	2	2	0	no	no	3	6	5	6	6
1	GP	F	17	U	T	father	1	2	0	no	yes	3	4	5	5	6
2	GP	F	15	U	T	mother	1	2	3	yes	yes	3	10	7	8	10
3	GP	F	15	U	T	mother	1	3	0	yes	yes	5	2	15	14	15
4	GP	F	16	U	T	father	1	2	0	yes	no	5	4	6	10	10
..	...	..	...	...	...	...	...	...	...	...	...	...	...	..	..	..
390	MS	M	20	U	A	other	1	2	2	yes	no	4	11	9	9	9
391	MS	M	17	U	T	mother	2	1	0	no	yes	2	3	14	16	16
392	MS	M	21	R	T	other	1	1	3	no	no	3	3	10	8	7
393	MS	M	18	R	T	mother	3	1	0	no	yes	5	0	11	12	10
394	MS	M	19	U	T	father	1	1	0	no	yes	5	5	8	9	9

[395 rows x 16 columns]

Verificar valores NaN portugues

school   0

sex   0

age   0

address   0

famsize   0

```
Pstatus      0
Medu         0
Fedu         0
Mjob         0
Fjob         0
reason       0
guardian     0
traveltime   0
studytime    0
failures     0
schoolsup    0
famsup       0
paid         0
activities   0
nursery      0
higher       0
internet     0
romantic     0
famrel       0
freetime     0
goout        0
Dalc         0
Walc         0
health       0
absences     0
G1           0
G2           0
G3           0
dtype: int64
```

clase de matematicas

El promedio de edad es: 16.696202531645568

clase de portugues

El promedio de edad es: 16.7442218798151

clase de matematicas

El promedio de G1 es: 10.90886075949367

El promedio de G2 es: 10.713924050632912

El promedio de G3 es: 10.415189873417722

clase de portugues

El promedio de G1 es: 11.399075500770415

El promedio de G2 es: 11.570107858243452

El promedio de G3 es: 11.906009244992296

clase de matematicas

clase de portugues

clase de matematicas

75

clase de portugues

32

```
   school sex  age address famsize Pstatus  Medu  Fedu  ... Dalc Walc health absences  G1  G2  G3  porcentaje_asistencia
0     GP   F  18     U    GT3     A     4     4 ...   1    1      3       6   5   6   6          94.666667
1     GP   F  17     U    GT3     T     1     1 ...   1    1      3       4   5   5   6          97.333333
2     GP   F  15     U    LE3     T     1     1 ...   2    3      3      10   7   8  10          92.000000
3     GP   F  15     U    GT3     T     4     2 ...   1    1      5       2  15  14  15         100.000000
4     GP   F  16     U    GT3     T     3     3 ...   1    2      5       4   6  10  10         100.000000
..    ...  .. ...    ...    ...    ...    ...   ... ...  ...  ..  ..          ...
390   MS   M  20     U    LE3     A     2     2 ...   4    5      4      11   9   9   9          92.000000
391   MS   M  17     U    LE3     T     3     1 ...   3    4      2       3  14  16  16          89.333333
392   MS   M  21     R    GT3     T     1     1 ...   3    3      3       3  10   8   7         100.000000
393   MS   M  18     R    LE3     T     3     2 ...   3    4      5       0  11  12  10          94.666667
394   MS   M  19     U    LE3     T     1     1 ...   3    3      5       5   8   9   9         100.000000

[395 rows x 34 columns]
   school sex  age address famsize Pstatus  Medu  Fedu  ... Dalc Walc health absences  G1  G2  G3  porcentaje_asistencia
0     GP   F  18     U    GT3     A     4     4 ...   1    1      3       4   0  11  11             87.50
1     GP   F  17     U    GT3     T     1     1 ...   1    1      3       2   9  11  11             93.75
```

2	GP	F	15	U	LE3	T	1	1	...	2	3	3	6 12 13 12	81.25
3	GP	F	15	U	GT3	T	4	2	...	1	1	5	0 14 14 14	100.00
4	GP	F	16	U	GT3	T	3	3	...	1	2	5	0 11 13 13	100.00
..	...	..	...	...	...	...	...	...	...	...	...	...	...	...
644	MS	F	19	R	GT3	T	2	3	...	1	2	5	4 10 11 10	87.50
645	MS	F	18	U	LE3	T	3	1	...	1	1	1	4 15 15 16	87.50
646	MS	F	18	U	GT3	T	1	1	...	1	1	5	6 11 12 9	81.25
647	MS	M	17	U	LE3	T	3	1	...	3	4	2	6 10 10 10	81.25
648	MS	M	18	R	LE3	T	3	2	...	3	4	5	4 10 11 11	87.50

[649 rows x 34 columns]

clase de portugues

32

	school	sex	age	address	famsize	Pstatus	Medu	Fedu	...	Dalc	Walc	health	absences G1 G2 G3	porcentaje_asistencia
0	GP	F	18	U	GT3	A	4	4	...	1	1	3	6 5 6 6	94.666667
1	GP	F	17	U	GT3	T	1	1	...	1	1	3	4 5 5 6	97.333333
2	GP	F	15	U	LE3	T	1	1	...	2	3	3	10 7 8 10	92.000000
3	GP	F	15	U	GT3	T	4	2	...	1	1	5	2 15 14 15	100.000000
4	GP	F	16	U	GT3	T	3	3	...	1	2	5	4 6 10 10	100.000000
..	...	..	...	...	...	...	...	...	...	...	...	...	...	...
390	MS	M	20	U	LE3	A	2	2	...	4	5	4	11 9 9 9	92.000000
391	MS	M	17	U	LE3	T	3	1	...	3	4	2	3 14 16 16	89.333333
392	MS	M	21	R	GT3	T	1	1	...	3	3	3	3 10 8 7	100.000000
393	MS	M	18	R	LE3	T	3	2	...	3	4	5	0 11 12 10	94.666667
394	MS	M	19	U	LE3	T	1	1	...	3	3	5	5 8 9 9	100.000000

[395 rows x 34 columns]

```
     school sex  age address famsize Pstatus  Medu  Fedu     Mjob  ... goout Dalc Walc  health absences  G1  G2  G3 extra

0    GP   F   18    U     GT3       A    4    4  at_home  ...    4    1    1       3         4   0  11  11    0

1    GP   F   17    U     GT3       T    1    1  at_home  ...    3    1    1       3         2   9  11  11    0

2    GP   F   15    U     LE3       T    1    1  at_home  ...    2    2    3       3         6  12  13  12    0

3    GP   F   15    U     GT3       T    4    2   health  ...    2    1    1       5         0  14  14  14    0

4    GP   F   16    U     GT3       T    3    3    other  ...    2    1    2       5         0  11  13  13    0

..   ...  ..  ...   ...     ...     ...   ...  ...      ...  ...  ...  ...  ...     ...       ...  ..  ..  ..  ...

644  MS   F   19    R     GT3       T    2    3 services  ...    2    1    2       5         4  10  11  10    0

645  MS   F   18    U     LE3       T    3    1  teacher  ...    4    1    1       1         4  15  15  16    0

646  MS   F   18    U     GT3       T    1    1    other  ...    1    1    1       5         6  11  12   9    0

647  MS   M   17    U     LE3       T    3    1 services  ...    5    3    4       2         6  10  10  10    0

648  MS   M   18    R     LE3       T    3    2 services  ...    1    3    4       5         4  10  11  11    0
```