

Red, quality 3

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 6.700	Min. :0.4400	Min. :0.0000	Min. :1.200	Min. :0.0610	Min. : 3.0
1st Qu.: 7.150	1st Qu.:0.6475	1st Qu.:0.0050	1st Qu.:1.875	1st Qu.:0.0790	1st Qu.: 5.0
Median : 7.500	Median :0.8450	Median :0.0350	Median :2.100	Median :0.0905	Median : 6.0
Mean : 8.360	Mean :0.8845	Mean :0.1710	Mean :2.635	Mean :0.1225	Mean :11.0
3rd Qu.: 9.875	3rd Qu.:1.0100	3rd Qu.:0.3275	3rd Qu.:3.100	3rd Qu.:0.1430	3rd Qu.:14.5
Max. :11.600	Max. :1.5800	Max. :0.6600	Max. :5.700	Max. :0.2670	Max. :34.0

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 9.0	Min. :0.9947	Min. :3.160	Min. :0.4000	Min. : 8.400
1st Qu.:12.5	1st Qu.:0.9961	1st Qu.:3.312	1st Qu.:0.5125	1st Qu.: 9.725
Median :15.0	Median :0.9976	Median :3.390	Median :0.5450	Median : 9.925
Mean :24.9	Mean :0.9975	Mean :3.398	Mean :0.5700	Mean : 9.955
3rd Qu.:42.5	3rd Qu.:0.9988	3rd Qu.:3.495	3rd Qu.:0.6150	3rd Qu.:10.575
Max. :49.0	Max. :1.0008	Max. :3.630	Max. :0.8600	Max. :11.000

Red, quality 4

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 4.600	Min. :0.230	Min. :0.0000	Min. : 1.300	Min. :0.04500	Min. : 3.00
1st Qu.: 6.800	1st Qu.:0.530	1st Qu.:0.0300	1st Qu.: 1.900	1st Qu.:0.06700	1st Qu.: 6.00
Median : 7.500	Median :0.670	Median :0.0900	Median : 2.100	Median :0.08000	Median :11.00
Mean : 7.779	Mean :0.694	Mean :0.1742	Mean : 2.694	Mean :0.09068	Mean :12.26
3rd Qu.: 8.400	3rd Qu.:0.870	3rd Qu.:0.2700	3rd Qu.: 2.800	3rd Qu.:0.08900	3rd Qu.:15.00
Max. :12.500	Max. :1.130	Max. :1.0000	Max. :12.900	Max. :0.61000	Max. :41.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 7.00	Min. :0.9934	Min. :2.740	Min. :0.3300	Min. : 9.00
1st Qu.: 14.00	1st Qu.:0.9957	1st Qu.:3.300	1st Qu.:0.4900	1st Qu.: 9.60
Median : 26.00	Median :0.9965	Median :3.370	Median :0.5600	Median :10.00
Mean : 36.25	Mean :0.9965	Mean :3.382	Mean :0.5964	Mean :10.27
3rd Qu.: 49.00	3rd Qu.:0.9974	3rd Qu.:3.500	3rd Qu.:0.6000	3rd Qu.:11.00
Max. :119.00	Max. :1.0010	Max. :3.900	Max. :2.0000	Max. :13.10

Red, quality 5

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 5.000	Min. :0.180	Min. :0.0000	Min. : 1.200	Min. :0.03900	Min. : 3.00
1st Qu.: 7.100	1st Qu.:0.460	1st Qu.:0.0900	1st Qu.: 1.900	1st Qu.:0.07400	1st Qu.: 9.00
Median : 7.800	Median :0.580	Median :0.2300	Median : 2.200	Median :0.08100	Median :15.00
Mean : 8.167	Mean :0.577	Mean :0.2437	Mean : 2.529	Mean :0.09274	Mean :16.98
3rd Qu.: 8.900	3rd Qu.:0.670	3rd Qu.:0.3600	3rd Qu.: 2.600	3rd Qu.:0.09400	3rd Qu.:23.00
Max. :15.900	Max. :1.330	Max. :0.7900	Max. :15.500	Max. :0.61100	Max. :68.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 6.00	Min. :0.9926	Min. :2.880	Min. :0.370	Min. : 8.5
1st Qu.: 26.00	1st Qu.:0.9962	1st Qu.:3.200	1st Qu.:0.530	1st Qu.: 9.4
Median : 47.00	Median :0.9970	Median :3.300	Median :0.580	Median : 9.7
Mean : 56.51	Mean :0.9971	Mean :3.305	Mean :0.621	Mean : 9.9
3rd Qu.: 84.00	3rd Qu.:0.9979	3rd Qu.:3.400	3rd Qu.:0.660	3rd Qu.:10.2
Max. :155.00	Max. :1.0031	Max. :3.740	Max. :1.980	Max. :14.9

Red, quality 6

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 4.700	Min. :0.1600	Min. :0.0000	Min. : 0.900	Min. :0.03400	Min. : 1.00
1st Qu.: 7.000	1st Qu.:0.3800	1st Qu.:0.0900	1st Qu.: 1.900	1st Qu.:0.06825	1st Qu.: 8.00
Median : 7.900	Median :0.4900	Median :0.2600	Median : 2.200	Median :0.07800	Median :14.00
Mean : 8.347	Mean :0.4975	Mean :0.2738	Mean : 2.477	Mean :0.08496	Mean :15.71
3rd Qu.: 9.400	3rd Qu.:0.6000	3rd Qu.:0.4300	3rd Qu.: 2.500	3rd Qu.:0.08800	3rd Qu.:21.00
Max. :14.300	Max. :1.0400	Max. :0.7800	Max. :15.400	Max. :0.41500	Max. :72.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 6.00	Min. :0.9901	Min. :2.860	Min. :0.4000	Min. : 8.40
1st Qu.: 23.00	1st Qu.:0.9954	1st Qu.:3.220	1st Qu.:0.5800	1st Qu.: 9.80
Median : 35.00	Median :0.9966	Median :3.320	Median :0.6400	Median :10.50
Mean : 40.87	Mean :0.9966	Mean :3.318	Mean :0.6753	Mean :10.63
3rd Qu.: 54.00	3rd Qu.:0.9979	3rd Qu.:3.410	3rd Qu.:0.7500	3rd Qu.:11.30
Max. :165.00	Max. :1.0037	Max. :4.010	Max. :1.9500	Max. :14.00

Red, quality 7

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 4.900	Min. :0.1200	Min. :0.0000	Min. :1.200	Min. :0.01200	Min. : 3.00
1st Qu.: 7.400	1st Qu.:0.3000	1st Qu.:0.3050	1st Qu.:2.000	1st Qu.:0.06200	1st Qu.: 6.00
Median : 8.800	Median :0.3700	Median :0.4000	Median :2.300	Median :0.07300	Median :11.00
Mean : 8.872	Mean :0.4039	Mean :0.3752	Mean :2.721	Mean :0.07659	Mean :14.05
3rd Qu.:10.100	3rd Qu.:0.4850	3rd Qu.:0.4900	3rd Qu.:2.750	3rd Qu.:0.08700	3rd Qu.:18.00
Max. :15.600	Max. :0.9150	Max. :0.7600	Max. :8.900	Max. :0.35800	Max. :54.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 7.00	Min. :0.9906	Min. :2.920	Min. :0.3900	Min. : 9.20
1st Qu.: 17.50	1st Qu.:0.9948	1st Qu.:3.200	1st Qu.:0.6500	1st Qu.:10.80
Median : 27.00	Median :0.9958	Median :3.280	Median :0.7400	Median :11.50
Mean : 35.02	Mean :0.9961	Mean :3.291	Mean :0.7413	Mean :11.47
3rd Qu.: 43.00	3rd Qu.:0.9974	3rd Qu.:3.380	3rd Qu.:0.8300	3rd Qu.:12.10
Max. :289.00	Max. :1.0032	Max. :3.780	Max. :1.3600	Max. :14.00

Red, quality 8

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 5.000	Min. :0.2600	Min. :0.0300	Min. :1.400	Min. :0.04400	Min. : 3.00
1st Qu.: 7.250	1st Qu.:0.3350	1st Qu.:0.3025	1st Qu.:1.800	1st Qu.:0.06200	1st Qu.: 6.00
Median : 8.250	Median :0.3700	Median :0.4200	Median :2.100	Median :0.07050	Median : 7.50
Mean : 8.567	Mean :0.4233	Mean :0.3911	Mean :2.578	Mean :0.06844	Mean :13.28
3rd Qu.:10.225	3rd Qu.:0.4725	3rd Qu.:0.5300	3rd Qu.:2.600	3rd Qu.:0.07550	3rd Qu.:16.50
Max. :12.600	Max. :0.8500	Max. :0.7200	Max. :6.400	Max. :0.08600	Max. :42.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. :12.00	Min. :0.9908	Min. :2.880	Min. :0.6300	Min. : 9.80
1st Qu.:16.00	1st Qu.:0.9942	1st Qu.:3.163	1st Qu.:0.6900	1st Qu.:11.32
Median :21.50	Median :0.9949	Median :3.230	Median :0.7400	Median :12.15
Mean :33.44	Mean :0.9952	Mean :3.267	Mean :0.7678	Mean :12.09
3rd Qu.:43.00	3rd Qu.:0.9972	3rd Qu.:3.350	3rd Qu.:0.8200	3rd Qu.:12.88
Max. :88.00	Max. :0.9988	Max. :3.720	Max. :1.1000	Max. :14.00
Max. :165.00	Max. :1.0037	Max. :4.010	Max. :1.9500	Max. :14.00

White, quality 3

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 4.200	Min. :0.1700	Min. :0.2100	Min. : 0.700	Min. :0.02200	Min. : 5.00
1st Qu.: 6.575	1st Qu.:0.2375	1st Qu.:0.2575	1st Qu.: 1.587	1st Qu.:0.03625	1st Qu.: 13.25
Median : 7.300	Median :0.2600	Median :0.3450	Median : 4.600	Median :0.04100	Median : 33.50
Mean : 7.600	Mean :0.3332	Mean :0.3360	Mean : 6.393	Mean :0.05430	Mean : 53.33
3rd Qu.: 8.525	3rd Qu.:0.4125	3rd Qu.:0.3850	3rd Qu.:10.700	3rd Qu.:0.05400	3rd Qu.: 47.50
Max. :11.800	Max. :0.6400	Max. :0.4700	Max. :16.200	Max. :0.24400	Max. :289.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 19.0	Min. :0.9911	Min. :2.870	Min. :0.2800	Min. : 8.00
1st Qu.:105.8	1st Qu.:0.9925	1st Qu.:3.035	1st Qu.:0.3800	1st Qu.: 9.55
Median :159.5	Median :0.9944	Median :3.215	Median :0.4400	Median :10.45
Mean :170.6	Mean :0.9949	Mean :3.188	Mean :0.4745	Mean :10.35
3rd Qu.:210.0	3rd Qu.:0.9969	3rd Qu.:3.325	3rd Qu.:0.5425	3rd Qu.:11.00
Max. :440.0	Max. :1.0001	Max. :3.550	Max. :0.7400	Max. :12.60

White, quality 4

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 4.800	Min. :0.1100	Min. :0.0000	Min. : 0.700	Min. :0.0130	Min. : 3.00
1st Qu.: 6.400	1st Qu.:0.2700	1st Qu.:0.1900	1st Qu.: 1.300	1st Qu.:0.0380	1st Qu.: 9.00
Median : 6.900	Median :0.3200	Median :0.2900	Median : 2.500	Median :0.0460	Median : 18.00
Mean : 7.129	Mean :0.3812	Mean :0.3042	Mean : 4.628	Mean :0.0501	Mean : 23.36
3rd Qu.: 7.600	3rd Qu.:0.4600	3rd Qu.:0.4000	3rd Qu.: 7.100	3rd Qu.:0.0540	3rd Qu.: 30.50
Max. :10.200	Max. :1.1000	Max. :0.8800	Max. :17.550	Max. :0.2900	Max. :138.50

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 10.0	Min. :0.9892	Min. :2.830	Min. :0.2500	Min. : 8.40
1st Qu.: 85.0	1st Qu.:0.9926	1st Qu.:3.070	1st Qu.:0.3800	1st Qu.: 9.40
Median :117.0	Median :0.9941	Median :3.160	Median :0.4700	Median :10.10
Mean :125.3	Mean :0.9943	Mean :3.183	Mean :0.4761	Mean :10.15
3rd Qu.:171.5	3rd Qu.:0.9958	3rd Qu.:3.280	3rd Qu.:0.5400	3rd Qu.:10.75
Max. :272.0	Max. :1.0004	Max. :3.720	Max. :0.8700	Max. :13.50

White, quality 5

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 4.500	Min. :0.100	Min. :0.0000	Min. : 0.600	Min. :0.00900	Min. : 2.00
1st Qu.: 6.400	1st Qu.:0.240	1st Qu.:0.2400	1st Qu.: 1.800	1st Qu.:0.04000	1st Qu.: 22.00
Median : 6.800	Median :0.280	Median :0.3200	Median : 7.000	Median :0.04700	Median : 35.00
Mean : 6.934	Mean :0.302	Mean :0.3377	Mean : 7.335	Mean :0.05155	Mean : 36.43
3rd Qu.: 7.400	3rd Qu.:0.340	3rd Qu.:0.4100	3rd Qu.:11.500	3rd Qu.:0.05300	3rd Qu.: 50.00
Max. :10.300	Max. :0.905	Max. :1.0000	Max. :23.500	Max. :0.34600	Max. :131.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 9.0	Min. :0.9872	Min. :2.790	Min. :0.2700	Min. : 8.000
1st Qu.:121.0	1st Qu.:0.9933	1st Qu.:3.080	1st Qu.:0.4200	1st Qu.: 9.200
Median :151.0	Median :0.9953	Median :3.160	Median :0.4700	Median : 9.500
Mean :150.9	Mean :0.9953	Mean :3.169	Mean :0.4822	Mean : 9.809
3rd Qu.:182.0	3rd Qu.:0.9972	3rd Qu.:3.240	3rd Qu.:0.5300	3rd Qu.:10.300
Max. :344.0	Max. :1.0024	Max. :3.790	Max. :0.8800	Max. :13.600

White, quality 6

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. : 3.800	Min. :0.0800	Min. :0.000	Min. : 0.700	Min. :0.01500	Min. : 3.00
1st Qu.: 6.300	1st Qu.:0.2000	1st Qu.:0.270	1st Qu.: 1.700	1st Qu.:0.03600	1st Qu.: 24.00
Median : 6.800	Median :0.2500	Median :0.320	Median : 5.300	Median :0.04300	Median : 34.00
Mean : 6.838	Mean :0.2606	Mean :0.338	Mean : 6.442	Mean :0.04522	Mean : 35.65
3rd Qu.: 7.300	3rd Qu.:0.3000	3rd Qu.:0.380	3rd Qu.: 9.900	3rd Qu.:0.04900	3rd Qu.: 46.00
Max. :14.200	Max. :0.9650	Max. :1.660	Max. :65.800	Max. :0.25500	Max. :112.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 18.0	Min. :0.9876	Min. :2.720	Min. :0.2300	Min. : 8.50
1st Qu.:107.2	1st Qu.:0.9917	1st Qu.:3.080	1st Qu.:0.4100	1st Qu.: 9.60
Median :132.0	Median :0.9937	Median :3.180	Median :0.4800	Median :10.50
Mean :137.0	Mean :0.9940	Mean :3.189	Mean :0.4911	Mean :10.58
3rd Qu.:164.0	3rd Qu.:0.9959	3rd Qu.:3.280	3rd Qu.:0.5500	3rd Qu.:11.40
Max. :294.0	Max. :1.0390	Max. :3.810	Max. :1.0600	Max. :14.00

White, quality 7

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. :4.200	Min. :0.0800	Min. :0.0100	Min. : 0.900	Min. :0.01200	Min. : 5.00
1st Qu.:6.200	1st Qu.:0.1900	1st Qu.:0.2800	1st Qu.: 1.700	1st Qu.:0.03100	1st Qu.: 25.00
Median :6.700	Median :0.2500	Median :0.3100	Median : 3.650	Median :0.03700	Median : 33.00
Mean :6.735	Mean :0.2628	Mean :0.3256	Mean : 5.186	Mean :0.03819	Mean : 34.13
3rd Qu.:7.200	3rd Qu.:0.3200	3rd Qu.:0.3600	3rd Qu.: 7.325	3rd Qu.:0.04400	3rd Qu.: 41.00
Max. :9.200	Max. :0.7600	Max. :0.7400	Max. :19.250	Max. :0.13500	Max. :108.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 34.0	Min. :0.9871	Min. :2.840	Min. :0.2200	Min. : 8.60
1st Qu.:101.0	1st Qu.:0.9906	1st Qu.:3.100	1st Qu.:0.4100	1st Qu.:10.60
Median :122.0	Median :0.9918	Median :3.200	Median :0.4800	Median :11.40
Mean :125.1	Mean :0.9925	Mean :3.214	Mean :0.5031	Mean :11.37
3rd Qu.:144.2	3rd Qu.:0.9937	3rd Qu.:3.320	3rd Qu.:0.5800	3rd Qu.:12.30
Max. :229.0	Max. :1.0004	Max. :3.820	Max. :1.0800	Max. :14.20

White, quality 8

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. :3.900	Min. :0.1200	Min. :0.0400	Min. : 0.800	Min. :0.01400	Min. : 6.00
1st Qu.:6.200	1st Qu.:0.2000	1st Qu.:0.2800	1st Qu.: 2.100	1st Qu.:0.03000	1st Qu.: 28.00
Median :6.800	Median :0.2600	Median :0.3200	Median : 4.300	Median :0.03600	Median : 35.00
Mean :6.657	Mean :0.2774	Mean :0.3265	Mean : 5.671	Mean :0.03831	Mean : 36.72
3rd Qu.:7.300	3rd Qu.:0.3300	3rd Qu.:0.3600	3rd Qu.: 8.200	3rd Qu.:0.04400	3rd Qu.: 44.50
Max. :8.200	Max. :0.6600	Max. :0.7400	Max. :14.800	Max. :0.12100	Max. :105.00

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 59.0	Min. :0.9871	Min. :2.940	Min. :0.2500	Min. : 8.50
1st Qu.:102.5	1st Qu.:0.9903	1st Qu.:3.120	1st Qu.:0.3800	1st Qu.:11.00
Median :122.0	Median :0.9916	Median :3.230	Median :0.4600	Median :12.00
Mean :126.2	Mean :0.9922	Mean :3.219	Mean :0.4862	Mean :11.64
3rd Qu.:150.0	3rd Qu.:0.9935	3rd Qu.:3.330	3rd Qu.:0.5850	3rd Qu.:12.60
Max. :212.5	Max. :1.0006	Max. :3.590	Max. :0.9500	Max. :14.00

White, quality 9

fixed.acidity	volatile.acidity	citric.acid	residual.sugar	chlorides	free.sulfur.dioxide
Min. :6.60	Min. :0.240	Min. :0.290	Min. : 1.60	Min. :0.0180	Min. :24.0
1st Qu.:6.90	1st Qu.:0.260	1st Qu.:0.340	1st Qu.: 2.00	1st Qu.:0.0210	1st Qu.:27.0
Median :7.10	Median :0.270	Median :0.360	Median : 2.20	Median :0.0310	Median :28.0
Mean :7.42	Mean :0.298	Mean :0.386	Mean : 4.12	Mean :0.0274	Mean :33.4
3rd Qu.:7.40	3rd Qu.:0.360	3rd Qu.:0.450	3rd Qu.: 4.20	3rd Qu.:0.0320	3rd Qu.:31.0
Max. :9.10	Max. :0.360	Max. :0.490	Max. :10.60	Max. :0.0350	Max. :57.0

total.sulfur.dioxide	density	pH	sulphates	alcohol
Min. : 85	Min. :0.9897	Min. :3.200	Min. :0.360	Min. :10.40
1st Qu.:113	1st Qu.:0.9898	1st Qu.:3.280	1st Qu.:0.420	1st Qu.:12.40
Median :119	Median :0.9903	Median :3.280	Median :0.460	Median :12.50
Mean :116	Mean :0.9915	Mean :3.308	Mean :0.466	Mean :12.18
3rd Qu.:124	3rd Qu.:0.9906	3rd Qu.:3.370	3rd Qu.:0.480	3rd Qu.:12.70
Max. :139	Max. :0.9970	Max. :3.410	Max. :0.610	Max. :12.90