

MOLES/MOLECULES/MASS CONVERSIONS PRACTICE ANSWERS

	# of particles in sample	# of moles in sample	molar mass of substance (g/mol)	mass of sample
1	5.36 x 10²⁵	89.0	36.7	3.27 kg
2	1.32 x 10 ²⁵	22	42.2	927.6 g
3	1.63 x 10 ²³	0.272	169	46.0 g
4	3.97 x 10 ²⁶	659	98.6	65.0 kg
5	5.900 x 10²⁶	979.7	12.01	11.77 kg
6	8.05 x 10¹⁹	1.34 x 10 ⁻⁴	1976	2650 mg
7	7.224 x 10 ²³	1.200	164.8	197.8 g
8	4.8 x 10 ²³	0.797	57.7	46 g
9	2.75 x 10 ²⁶	457	180.9	82.7 kg
10	1.28 x 10²⁰	2.12 x 10 ⁻⁴	562.7	0.119 g
11	6.23 x 10¹⁹	1.03 x 10 ⁻⁴	81.5	788 kg
12	6.02 x 10 ²³	1.00	112.4	112.4 g
13	7.28 x 10 ²³	1.21	470.	568 g
14	3.61 x 10 ¹⁸	6.0 x 10⁻⁶	846	5.08 mg
15	9.635 x 10⁶²	1.600 x 10 ³⁹	112.5	1.800 x 10 ⁴¹ g
16	5.44 x 10²²	0.09000	961.	8.65 g
17	1.32 x 10 ²⁵	21.99	271.8	5978 g
18	3.61 x 10 ²³	0.599	225.2	135 g
19	2.53 x 10 ²⁰	4.19 x 10⁻⁴	6490	2.72 g
20	9.3 x 10²²	0.154	158.7	24.51 g

21. 7.59 x 10²¹

22. 0.381

23. 6.72 x 10²³

24. 0.01326

25. 6.3 x 10²¹

26. 6.89 x 10²²

27. 1.15 x 10⁻⁸

28. 8.1 x 10¹⁸