1	Give definition and describe formulation of scattering theory in terms of representation theory	№1
2	Describe the type of scattering matrix	№1
3	Give definition of the discrete spectrum	№1
4	Explain the virial theorem	№1
5	Describe same particles	№1
6	Give definition of statistical physics	№1
7	Explain S-matrix	№1
8	Give definition and describe continuous spectrum	№1
9	Descibe the scattering operator in the continuous case	№1
10	Explain representation theory	№1
11	Characterize analytic properties of the wave function	№1
12	Give definition of spectral theory	№1
13	Describe the Green's function	№1
14	Explain perturbation theory	№1
15	Characterize applications of spectral theory	№1
16	Describe operator algebra	№2
17	Give definition of the time Green's function	№2
18	Explain translational representation for the solution of the wave equation in free space	№2
19	Characterize the wave function in the semiclassical approximation	№2
20	Describe translational representation for the solution of the wave equation in free space	№2
21	Explain quantum oscillator under the influence of an external force	№2
22	Give definition and describe parametric excitation of a quantum oscillator	№2
23	Explain the scattering matrix	№2
24	Describe heisenberg representation	№2
25	Give definition of canonical transformations	№2
26	Describe generalization of the normalization	№2
27	Analyze quantum oscillator under the influence of an external force	№2
28	Give definition and describe perturbation theory for quasistationary states	№2
29	Analyze wave function of a multichannel system	№2
30	Explain the motion of two particles in an external potential field	№2

31	Explain section and unitarity of the S matrix	№3
32	Describe symmetry of the S matrix	№3
33	Give definition of S matrix and its relation to the R-matrix	№3
34	Explain threshold phenomena	№3
35	Characterize energy dependence of the scattering cross section near the threshold of reactions	№3
36	Describe generalization to the case of particles with spin	№3
37	Give definition and describe the Faddeev equations	№3
38	Describe general formulas for scattering cross sections	№3
39	Explain the motion of two particles in an external potential field	№3
40	Analyze the formula for determining the amplitudes of various processes	№3
41	Explain asymptotics of the wave function at large distances	№3
42	Explain and describe theory of weak interactions	№3
43	Analyze reactions with neutrino emission	№3
44	Describe quasienergy of a system subjected to periodic action	№3
45	Characterize multiplication in the case of several channels	№3