

APPENDIX

B

Homework Problem Locator

The tables below allow one to readily find homework problem numbers in the sixth edition (*6e*) of *Physics* relative to the fifth edition (*5e*). Problems in *6e* that have been numerically altered or substantially rewritten from the *5e* problem are indicated by a bracket (for example, {8}); and those that have been deleted from *6e* are indicated by a minus sign (-). Problems that are new in *6e* are also listed.

Note: Indicators are used in the sixth edition of *Physics* for problems that have solutions available via the worldwide web (**www**) or in the *Student's Solutions Manual (ssm)*. This availability may be taken into consideration when assigning homework problems.

Chapter 1: Introduction and Mathematical Concepts

New Problems in <i>6e</i> :		4, 10, 14, 18, 26, 29, 34, 37, 46, 49			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	5	24	24	47	47
2	2	25	23	48	48
3	3	26	56	49	59
4	-	27	27	50	50
5	1	28	-	51	12
6	6	29	28	52	22
7	7	30	60	53	31
8	54	31	53	54	8
9	9	32	32	55	43
10	-	33	33	56	-
11	13	34	-	57	35
12	-	35	57	58	-
13	52	36	36	59	-
14	11	37	58	60	30
15	15	38	38	61	62
16	-	39	39	62	61
17	16	40	42	63	63
18	17	41	41	64	64
19	19	42	40	65	65
20	20	43	55	66	66
21	21	44	45	67	67
22	51	45	44	68	68
23	25	46	-	69	69

Chapter 2: Kinematics in One Dimension

New Problems in 6e:		6, 10, 16, 24, 26, 29, 64, 71, 76, 87, 88			
5e	6e	5e	6e	5e	6e
1	3	30	30	60	60
2	2	31	32	61	61
3	1	32	{31}	62	62
4	69	33	77	63	63
5	66	34	34	64	-
6	5	35	79	65	37
7	7	36	36	66	-
8	74	37	65	67	13
9	9	38	38	68	42
10	-	39	40	69	4
11	11	40	39	70	70
12	12	41	41	71	-
13	67	42	68	72	33
14	14	43	44	73	73
15	15	44	43	74	8
16	-	45	45	75	51
17	{17}	46	46	76	-
18	18	47	{47}	77	72
19	21	48	{49}	78	55
20	20	49	48	79	35
21	19	50	50	80	80
22	22	51	75	81	81
23	25	52	52	82	82
24	23	53	53	83	83
25	-	54	54	84	84
26	-	55	56	85	85
27	27	56	78	86	86
28	28	57	57		
29	-	58	59		

Chapter 3: Kinematics in Two Dimensions

New Problems in 6e:		8, 18, 26, 32, 42, 48, 54, 58, 67			
5e	6e	5e	6e	5e	6e
1	5	11	11	21	21
2	60	12	64	22	66
3	3	13	61	23	22
4	4	14	14	24	24
5	1	15	63	25	65
6	7	16	16	26	20
7	-	17	17	27	27
8	6	18	19	28	31
9	9	19	-	29	29
10	10	20	-	30	30

Chapter 3 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
31	28	48	–	65	25
32	–	49	49	66	23
33	37	50	52	67	–
34	34	51	51	68	36
35	{35}	52	50	69	57
36	68	53	53	70	70
37	33	54	–	71	41
38	{39}	55	56	72	72
39	38	56	{55}	73	44
40	40	57	69	74	74
41	71	58	–	75	75
42	–	59	59	76	76
43	43	60	2	77	77
44	73	61	13	78	78
45	45	62	62	79	79
46	46	63	15		
47	47	64	12		

Chapter 4: Forces and Newton's Laws of Motion

New Problems in <i>6e</i> :		2, 14, 26, 42, 46, 58, 68, 74, 88, 90, 118, 119			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	27	23	53	53
2	–	28	28	54	54
3	7	29	31	55	102
4	4	30	30	56	59
5	5	31	29	57	107
6	96	32	106	58	–
7	3	33	33	59	{56}
8	8	34	34	60	60
9	9	35	35	61	111
10	10	36	94	62	62
11	63	37	37	63	12
12	{11}	38	38	64	64
13	13	39	91	65	65
14	15	40	{41}	66	92
15	–	41	40	67	67
16	16	42	–	68	{72}
17	17	43	43	69	69
18	{18}	44	44	70	93
19	21	45	45	71	95
20	20	46	47	72	–
21	19	47	–	73	73
22	98	48	52	74	77
23	87	49	49	75	103
24	24	50	50	76	76
25	25	51	89	77	–
26	–	52	48	78	78

Chapter 4 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
79	79	93	70	107	57
80	80	94	36	108	108
81	105	95	71	109	85
82	82	96	6	110	110
83	83	97	–	111	61
84	84	98	22	112	112
85	109	99	99	113	113
86	86	100	100	114	114
87	27	101	101	115	115
88	–	102	55	116	116
89	51	103	75	117	117
90	97	104	104		
91	39	105	81		
92	66	106	32		

Chapter 5: Dynamics of Uniform Circular Motion

New Problems in <i>6e</i>:		2, 3, 12, 23, 24, 31, 36, 40			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	22	–	43	11
2	–	23	22	44	28
3	–	24	–	45	7
4	4	25	25	46	46
5	47	26	26	47	5
6	6	27	27	48	48
7	45	28	44	49	49
8	52	29	29	50	30
9	9	30	50	51	51
10	10	31	–	52	8
11	43	32	34	53	55
12	–	33	33	54	54
13	15	34	32	55	53
14	14	35	35	56	56
15	13	36	–	57	57
16	16	37	39	58	59
17	17	38	38	59	58
18	{19}	39	37	60	60
19	18	40	{41}	61	61
20	20	41	–		
21	21	42	42		

Chapter 6: Work and Energy

New Problems in 6e:		4, 12, 20, 30, 33, 40, 52, 55, 64			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	71	30	–	59	74
2	–	31	31	60	60
3	3	32	32	61	61
4	2	33	–	62	62
5	5	34	34	63	65
6	6	35	69	64	–
7	7	36	36	65	63
8	73	37	37	66	66
9	9	38	–	67	67
10	{10}	39	77	68	68
11	11	40	{39}	69	35
12	14	41	41	70	70
13	13	42	42	71	1
14	–	43	43	72	47
15	17	44	78	73	8
16	16	45	45	74	59
17	15	46	46	75	49
18	18	47	72	76	{75}
19	19	48	48	77	38
20	22	49	50	78	44
21	23	50	76	79	79
22	–	51	–	80	80
23	21	52	{51}	81	81
24	24	53	53	82	82
25	27	54	54	83	83
26	26	55	–	84	84
27	25	56	56	85	85
28	28	57	57		
29	29	58	58		

Chapter 7: Impulse and Momentum

New Problems in 6e:		3, 4, 10, 16, 20, 26, 28, 36, 56, 64, 65			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	5	13	11	25	25
2	48	14	14	26	49
3	2	15	15	27	27
4	–	16	46	28	–
5	1	17	47	29	29
6	50	18	18	30	32
7	7	19	22	31	31
8	8	20	–	32	30
9	9	21	53	33	{55}
10	–	22	{19}	34	–
11	{13}	23	57	35	35
12	12	24	24	36	34

Chapter 7 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
37	37	46	–	55	33
38	40	47	17	56	44
39	39	48	–	57	23
40	38	49	–	58	58
41	41	50	6	59	59
42	52	51	51	60	60
43	43	52	42	61	61
44	–	53	21	62	62
45	45	54	54	63	63

Chapter 8: Rotational Kinematics

New Problems in 6e:		2, 6, 8, 16, 21, 25, 30, 44, 49, 52, 61, 75, 76			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	3	26	26	51	63
2	–	27	27	52	53
3	1	28	28	53	54
4	4	29	32	54	–
5	5	30	–	55	55
6	–	31	29	56	–
7	7	32	33	57	39
8	–	33	–	58	{31}
9	9	34	34	59	17
10	10	35	35	60	60
11	11	36	36	61	58
12	64	37	68	62	62
13	13	38	38	63	51
14	14	39	57	64	12
15	15	40	40	65	65
16	–	41	41	66	42
17	59	42	66	67	67
18	18	43	43	68	37
19	19	44	–	69	69
20	–	45	45	70	70
21	20	46	48	71	71
22	22	47	47	72	72
23	23	48	46	73	73
24	–	49	56	74	74
25	24	50	50		

Chapter 9: Rotational Dynamics

New Problems in 6e:		3, 8, 12, 14, 30, 34, 36, 46, 54, 66, 79, 80			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	61	27	26	53	53
2	2	28	28	54	52
3	4	29	29	55	63
4	6	30	–	56	56
5	5	31	31	57	57
6	–	32	32	58	69
7	–	33	65	59	60
8	7	34	35	60	59
9	9	35	62	61	1
10	10	36	–	62	–
11	–	37	39	63	–
12	11	38	38	64	{55}
13	13	39	37	65	33
14	12	40	40	66	18
15	15	41	41	67	21
16	16	42	72	68	24
17	{17}	43	45	69	58
18	64	44	–	70	48
19	19	45	43	71	25
20	–	46	44	72	42
21	67	47	70	73	73
22	22	48	47	74	74
23	23	49	49	75	75
24	68	50	50	76	76
25	71	51	51	77	77
26	27	52	–	78	78

Chapter 10: Simple Harmonic Motion and Elasticity

New Problems in 6e:		6, 14, 19, 28, 30, 44, 54, 62, 75, 76, 77, 91, 92			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	15	15	29	25
2	72	16	16	30	{31}
3	3	17	17	31	–
4	4	18	70	32	32
5	5	19	67	33	33
6	–	20	20	34	{35}
7	–	21	21	35	–
8	8	22	74	36	80
9	10	23	23	37	{37}
10	{9}	24	24	38	38
11	7	25	29	39	69
12	12	26	27	40	42
13	13	27	26	41	41
14	–	28	–	42	40

Chapter 10 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
43	43	59	59	75	11
44	–	60	60	76	58
45	45	61	61	77	–
46	46	62	–	78	79
47	47	63	63	79	81
48	73	64	64	80	36
49	71	65	65	81	82
50	52	66	84	82	34
51	51	67	–	83	83
52	50	68	68	84	66
53	53	69	39	85	85
54	56	70	18	86	86
55	57	71	49	87	87
56	–	72	2	88	88
57	55	73	48	89	89
58	78	74	22	90	90

Chapter 11: Fluids

New Problems in <i>6e</i> : 4, 8, 10, 14, 20, 24, 33, 38, 46, 52, 58, 60, 63, 73, 86, 102, 103					
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	5	28	28	55	55
2	82	29	90	56	56
3	–	30	30	57	57
4	81	31	31	58	–
5	1	32	–	59	59
6	7	33	32	60	–
7	6	34	34	61	61
8	–	35	35	62	93
9	9	36	37	63	–
10	11	37	36	64	67
11	–	38	–	65	65
12	12	39	79	66	66
13	13	40	–	67	64
14	–	41	42	68	96
15	{15}	42	41	69	69
16	88	43	43	70	–
17	17	44	44	71	71
18	95	45	45	72	70
19	19	46	–	73	72
20	77	47	47	74	84
21	21	48	94	75	75
22	22	49	48	76	76
23	85	50	50	77	–
24	25	51	83	78	78
25	80	52	53	79	39
26	26	53	–	80	–
27	91	54	87	81	3

Chapter 11 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
82	2	90	29	98	98
83	51	91	27	99	99
84	74	92	92	100	100
85	16	93	62	101	101
86	40	94	49	102	104
87	23	95	18		
88	54	96	68		
89	89	97	97		

Chapter 12: Temperature and Heat

New Problems in <i>6e</i> : 2, 14, 16, 20, 27, 28, 34, 40, 58, 64, 68, 70, 101, 102					
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	35	–	69	72
2	4	36	36	70	76
3	3	37	37	71	71
4	–	38	38	72	–
5	5	39	–	73	69
6	86	40	39	74	74
7	7	41	45	75	73
8	6	42	42	76	75
9	9	43	{43}	77	10
10	77	44	44	78	52
11	11	45	41	79	55
12	12	46	47	80	80
13	81	47	46	81	13
14	–	48	48	82	82
15	15	49	91	83	31
16	–	50	50	84	84
17	17	51	51	85	85
18	18	52	78	86	8
19	19	53	53	87	61
20	90	54	54	88	59
21	–	55	79	89	{89}
22	22	56	56	90	31
23	23	57	57	91	49
24	94	58	–	92	92
25	25	59	88	93	93
26	26	60	60	94	24
27	29	61	87	95	95
28	–	62	62	96	96
29	–	63	{63}	97	97
30	30	64	–	98	98
31	83	65	65	99	99
32	32	66	66	100	100
33	35	67	67		
34	33	68	–		

Chapter 13: The Transfer of Heat

New Problems in 6e:						4, 12, 16, 20, 29, 43, 44
5e	6e	5e	6e	5e	6e	
1	27	15	35	29	-	
2	28	16	18	30	22	
3	-	17	19	31	21	
4	3	18	-	32	{13}	
5	5	19	17	33	24	
6	8	20	-	34	10	
7	7	21	31	35	15	
8	6	22	30	36	14	
9	-	23	23	37	37	
10	34	24	32	38	38	
11	11	25	25	39	39	
12	9	26	26	40	40	
13	{33}	27	1	41	41	
14	36	28	2	42	42	

Chapter 14: The Ideal Gas Law and Kinetic Theory

New Problems in 6e:						4, 12, 20, 21, 32, 40, 46, 51, 63, 64
5e	6e	5e	6e	5e	6e	
1	5	22	22	43	41	
2	-	23	23	44	44	
3	3	24	24	45	45	
4	2	25	57	46	-	
5	1	26	26	47	11	
6	6	27	27	48	13	
7	55	28	50	49	43	
8	8	29	31	50	-	
9	9	30	30	51	28	
10	10	31	29	52	16	
11	47	32	-	53	53	
12	-	33	33	54	36	
13	48	34	34	55	7	
14	14	35	{35}	56	56	
15	-	36	54	57	25	
16	52	37	37	58	58	
17	17	38	38	59	59	
18	18	39	39	60	60	
19	19	40	-	61	61	
20	-	41	49	62	62	
21	-	42	42			

Chapter 15: Thermodynamics

New Problems in 6e: 4, 8, 18,21, 26, 30, 44, 48, 50, 60, 66, 85, 99, 100					
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	5	34	80	67	67
2	2	35	35	68	68
3	–	36	89	69	{69}
4	3	37	37	70	70
5	1	38	88	71	79
6	6	39	39	72	72
7	–	40	40	73	{73}
8	77	41	41	74	20
9	9	42	76	75	19
10	12	43	43	76	42
11	11	44	–	77	7
12	10	45	91	78	57
13	83	46	47	79	71
14	84	47	46	80	34
15	15	48	–	81	61
16	16	49	49	82	51
17	17	50	–	83	13
18	–	51	82	84	14
19	75	52	52	85	86
20	74	53	53	86	–
21	–	54	90	87	87
22	22	55	55	88	38
23	23	56	56	89	36
24	24	57	78	90	54
25	{27}	58	58	91	45
26	–	59	59	92	28
27	25	60	–	93	93
28	92	61	81	94	94
29	29	62	62	95	95
30	32	63	–	96	96
31	31	64	64	97	97
32	–	65	65	98	98
33	33	66	63		

Chapter 16: Waves and Sound

New Problems in 6e: 2, 8, 30, 38, 42, 58, 65, 70, 74, 77, 84, 109, 110					
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	8	–	15	85
2	–	9	9	16	16
3	5	10	96	17	{17}
4	4	11	11	18	18
5	3	12	{12}	19	97
6	86	13	13	20	20
7	7	14	14	21	21

Chapter 16 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
22	{22}	51	88	80	80
23	23	52	52	81	81
24	24	53	49	82	–
25	90	54	54	83	33
26	26	55	{55}	84	15
27	27	56	56	85	–
28	28	57	57	86	6
29	29	58	–	87	61
30	82	59	59	88	51
31	89	60	60	89	31
32	32	61	87	90	25
33	83	62	62	91	73
34	92	63	93	92	34
35	35	64	63	93	94
36	37	65	–	94	95
37	36	66	100	95	19
38	–	67	67	96	10
39	39	68	68	97	98
40	40	69	69	98	99
41	41	70	–	99	64
42	44	71	71	100	66
43	43	72	72	101	45
44	–	73	91	102	102
45	101	74	–	103	103
46	46	75	75	104	104
47	47	76	–	105	105
48	48	77	76	106	106
49	53	78	78	107	107
50	50	79	79	108	108

Chapter 17: The Principle of Linear Superposition and Interference Phenomena

New Problems in 6e:		2, 8, 10, 18, 24, 29, 34, 38, 50, 52, 53, 62, 63			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	3	14	15	27	51
2	–	15	14	28	26
3	1	16	–	29	–
4	6	17	19	30	30
5	47	18	16	31	31
6	4	19	17	32	32
7	7	20	48	33	33
8	–	21	21	34	36
9	9	22	54	35	–
10	12	23	23	36	46
11	11	24	45	37	37
12	–	25	25	38	–
13	13	26	28	39	39

Chapter 17 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
40	42	48	20	56	56
41	40	49	{49}	57	57
42	41	50	–	58	58
43	43	51	27	59	59
44	44	52	–	60	60
45	–	53	–	61	61
46	35	54	22		
47	5	55	55		

Chapter 18: Electric Forces and Electric Fields

New Problems in <i>6e</i> :		3, 15, 16, 20, 28, 36, 53, 58, 65, 75, 76			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	25	25	49	49
2	–	26	26	50	50
3	2	27	59	51	51
4	4	28	29	52	52
5	5	29	30	53	54
6	6	30	–	54	55
7	56	31	31	55	7
8	8	32	32	56	57
9	9	33	–	57	60
10	10	34	35	58	–
11	61	35	33	59	27
12	14	36	34	60	62
13	–	37	37	61	11
14	12	38	38	62	63
15	13	39	39	63	–
16	17	40	66	64	64
17	–	41	41	65	19
18	18	42	42	66	40
19	67	43	45	67	24
20	–	44	44	68	69
21	21	45	43	69	70
22	22	46	48	70	71
23	23	47	47	71	72
24	68	48	46	72	73
				73	74

Chapter 19: Electric Potential Energy and the Electric Potential

New Problems in 6e:		4, 12, 14, 16, 28, 32, 42, 54, 62, 67, 68			
5e	6e	5e	6e	5e	6e
1	1	23	19	45	44
2	50	24	60	46	46
3	–	25	25	47	59
4	3	26	58	48	48
5	5	27	27	49	–
6	52	28	–	50	2
7	{7}	29	29	51	39
8	8	30	30	52	6
9	9	31	55	53	38
10	10	32	–	54	–
11	11	33	{33}	55	31
12	49	34	56	56	34
13	13	35	35	57	{57}
14	–	36	36	58	26
15	15	37	37	59	47
16	–	38	53	60	24
17	17	39	51	61	61
18	18	40	40	62	62
19	23	41	{41}	63	63
20	20	42	–	64	64
21	{21}	43	43	65	65
22	22	44	45	66	66

Chapter 20: Electric Circuits

New Problems in 6e:		1, 8, 12, 16, 26, 30, 54, 68, 82, 86, 123, 124			
5e	6e	5e	6e	5e	6e
1	–	20	20	39	43
2	2	21	100	40	40
3	3	22	22	41	41
4	–	23	23	42	42
5	103	24	24	43	39
6	4	25	–	44	108
7	7	26	25	45	{45}
8	6	27	27	46	46
9	9	28	28	47	47
10	10	29	29	48	48
11	11	30	32	49	51
12	14	31	31	50	50
13	13	32	36	51	53
14	–	33	33	52	52
15	105	34	34	53	{49}
16	–	35	35	54	–
17	17	36	–	55	55
18	113	37	37	56	56
19	19	38	38	57	57

Chapter 20 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
58	60	80	80	102	102
59	59	81	81	103	5
60	{58}	82	107	104	76
61	61	83	–	105	15
62	62	84	84	106	106
63	{64}	85	85	107	83
64	63	86	–	108	114
65	109	87	87	109	65
66	66	88	88	110	110
67	–	89	101	111	111
68	67	90	90	112	72
69	69	91	91	113	18
70	71	92	92	114	44
71	70	93	115	115	93
72	112	94	94	116	116
73	73	95	97	117	117
74	74	96	96	118	118
75	75	97	95	119	119
76	104	98	{99}	120	120
77	77	99	{98}	121	121
78	{78}	100	21	122	122
79	79	101	89		

Chapter 21: Magnetic Forces and Magnetic Fields

New Problems in <i>6e</i> :		6, 12, 17, 22, 24, 26, 32, 36, 40, 50, 75, 83, 85			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	69	23	73	45	77
2	2	24	–	46	46
3	64	25	25	47	47
4	4	26	28	48	48
5	5	27	27	49	65
6	66	28	–	50	68
7	7	29	29	51	51
8	–	30	30	52	52
9	9	31	31	53	72
10	11	32	70	54	54
11	–	33	33	55	{55}
12	10	34	{34}	56	74
13	15	35	35	57	57
14	14	36	67	58	76
15	12	37	37	59	59
16	16	38	38	60	60
17	71	39	–	61	61
18	18	40	42	62	62
19	19	41	41	63	63
20	20	42	39	64	3
21	{21}	43	{43}	65	49
22	–	44	44	66	–

Chapter 21 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
67	–	73	23	80	80
68	–	74	56	81	81
69	1	75	8	82	82
70	–	76	58	83	84
71	–	78	45		
72	53	79	78		

Chapter 22: Electromagnetic Induction

New Problems in <i>6e</i> :		2, 6, 10, 18, 20, 40, 48, 60, 81, 82			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	28	{28}	55	57
2	–	29	65	56	56
3	3	30	30	57	{55}
4	4	31	31	58	58
5	5	32	70	59	59
6	–	33	{33}	60	–
7	7	34	34	61	61
8	8	35	39	62	62
9	9	36	37	63	{63}
10	–	37	–	64	24
11	11	38	36	65	29
12	14	39	67	66	66
13	13	40	38	67	35
14	12	41	41	68	68
15	15	42	42	69	{69}
16	16	43	74	70	32
17	–	44	44	71	25
18	–	45	49	72	72
19	19	46	46	73	43
20	17	47	47	74	53
21	21	48	–	75	75
22	22	49	45	76	76
23	64	50	50	77	77
24	23	51	51	78	78
25	71	52	52	79	79
26	26	53	73	80	80
27	27	54	54		

Chapter 23: Alternating Current Circuits

New Problems in <i>6e</i> :		4, 12, 18, 21, 28, 51, 52			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	4	3	7	7
2	2	5	37	8	40
3	–	6	6	9	9

Chapter 23 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
10	–	24	44	38	38
11	41	25	25	39	16
12	10	26	{26}	40	8
13	13	27	27	41	11
14	14	28	–	42	20
15	15	29	29	43	33
16	39	30	31	44	–
17	–	31	30	45	34
18	36	32	32	46	46
19	19	33	43	47	47
20	42	34	45	48	48
21	21	35	35	49	49
22	22	36	17	50	50
23	{23}	37	5		

Chapter 24: Electromagnetic Waves

New Problems in <i>6e</i> :				4, 12, 18, 38, 52, 61, 62	
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	43	21	42	41	7
2	2	22	{22}	42	21
3	–	23	23	43	1
4	3	24	44	44	24
5	5	25	25	45	26
6	6	26	45	46	46
7	41	27	{27}	47	35
8	–	28	28	48	32
9	11	29	51	49	49
10	10	30	30	50	40
11	9	31	{31}	51	29
12	8	32	48	52	53
13	13	33	33	53	–
14	–	34	34	54	54
15	15	35	47	55	55
16	14	36	36	56	56
17	17	37	–	57	57
18	16	38	37	58	58
19	19	39	39	59	59
20	20	40	50	60	60

Chapter 25: The Reflection of Light: Mirrors

New Problems in 6e:		6, 14, 22, 36, 38, 42, 47			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	16	16	31	23
2	32	17	17	32	2
3	3	18	33	33	18
4	4	19	{19}	34	34
5	5	20	20	35	21
6	–	21	35	36	–
7	8	22	–	37	37
8	7	23	31	38	24
9	41	24	–	39	27
10	10	25	{25}	40	28
11	11	26	26	41	9
12	30	27	39	42	43
13	13	28	40	43	46
14	–	29	29	44	44
15	15	30	12	45	45

Chapter 26: The Refraction of Light: Lenses and Optical Instruments

New Problems in 6e:		2, 12, 20, 32, 40, 48, 62, 72, 80, 86, 90, 124, 125			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	27	–	54	114
2	–	28	27	55	117
3	3	29	30	56	56
4	6	30	29	57	57
5	5	31	35	58	116
6	4	32	34	59	61
7	{7}	33	–	60	60
8	8	34	33	61	59
9	105	35	31	62	63
10	108	36	36	63	–
11	13	37	37	64	64
12	11	38	–	65	65
13	{28}	39	39	66	66
14	15	40	38	67	{67}
15	17	41	41	68	–
16	14	42	42	69	101
17	19	43	43	70	70
18	18	44	46	71	71
19	16	46	97	72	68
20	22	47	104	73	113
21	21	48	103	74	117
22	–	49	–	75	75
23	23	50	49	76	106
24	24	51	50	77	77
25	99	52	{51}	78	78
26	26	53	55	79	79

Chapter 26 (continued)

<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
80	–	95	94	110	110
81	81	96	96	111	53
82	82	97	45	112	112
83	98	98	83	113	73
84	–	99	{25}	114	54
85	85	100	100	115	115
86	84	101	69	116	58
87	87	102	102	117	74
88	88	103	47	118	118
89	89	104	44	119	119
90	92	105	9	120	120
91	91	106	76	121	121
92	–	107	107	122	122
93	93	108	10	123	123
94	95	109	109		

Chapter 27: Interference and the Wave Nature of Light

New Problems in <i>6e</i> :		2, 10, 22, 24, 30, 40, 42, 48, 52, 65, 66			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	47	23	23	45	57
2	46	24	26	46	3
3	–	25	25	47	1
4	4	26	54	48	20
5	5	27	27	49	13
6	6	28	28	50	50
7	{7}	29	29	51	31
8	8	30	–	52	–
9	9	31	51	53	35
10	–	32	33	54	–
11	11	33	32	55	43
12	12	34	34	56	16
13	–	35	53	57	45
14	14	36	36	58	18
15	15	37	37	59	59
16	56	38	39	60	60
17	{17}	39	38	61	61
18	58	40	–	62	62
19	19	41	41	63	63
20	49	42	–	64	64
21	21	43	55		
22	–	44	44		

Chapter 28: Special Relativity

New Problems in 6e: 8, 18, 28, 30, 48, 49					
5e	6e	5e	6e	5e	6e
1	3	17	17	33	33
2	38	18	–	34	40
3	1	19	19	35	35
4	4	20	20	36	22
5	{5}	21	21	37	9
6	6	22	36	38	2
7	7	23	27	39	39
8	–	24	24	40	34
9	11	25	25	41	41
10	10	26	26	42	29
11	37	27	23	43	16
12	12	28	42	44	44
13	{13}	29	–	45	45
14	14	30	32	46	46
15	15	31	31	47	47
16	43	32	–		

Chapter 29: Particles and Waves

New Problems in 6e: 6, 8, 14, 16, 24, 28, 32, 50, 51					
5e	6e	5e	6e	5e	6e
1	1	18	18	35	35
2	38	19	19	36	36
3	3	20	45	37	21
4	4	21	37	38	2
5	5	22	22	39	23
6	42	23	39	40	–
7	–	24	40	41	–
8	–	25	25	42	7
9	9	26	26	43	27
10	44	27	43	44	10
11	11	28	–	45	20
12	12	29	{29}	46	46
13	13	30	30	47	47
14	41	31	31	48	48
15	15	32	33	49	49
16	–	33	–		
17	{17}	34	34		

Chapter 30: The Nature of the Atom

New Problems in 6e:				4, 12, 18, 24, 40, 60,61	
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	21	23	41	41
2	2	22	–	42	42
3	3	23	21	43	43
4	–	24	22	44	29
5	5	25	25	45	7
6	6	26	26	46	34
7	45	27	27	47	47
8	8	28	{30}	48	36
9	9	29	44	49	11
10	10	30	28	50	50
11	49	31	31	51	{51}
12	14	32	32	52	52
13	13	33	33	53	15
14	–	34	46	54	20
15	53	35	{35}	55	55
16	–	36	48	56	56
17	17	37	37	57	57
18	16	38	38	58	58
19	19	39	–	59	59
20	54	40	39		

Chapter 31: Nuclear Physics and Radioactivity

New Problems in 6e:				2, 30, 38, 44, 54, 61, 62	
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	1	21	21	41	41
2	–	22	50	42	42
3	3	23	23	43	–
4	48	24	55	44	43
5	5	25	{25}	45	45
6	7	26	26	46	46
7	6	27	27	47	10
8	8	28	28	48	4
9	9	29	29	49	31
10	47	30	–	50	{22}
11	11	31	49	51	18
12	{14}	32	32	52	40
13	13	33	34	53	53
14	12	34	33	54	24
15	15	35	35	55	–
16	16	36	36	56	56
17	17	37	37	57	57
18	51	38	–	58	58
19	19	39	39	59	59
20	{20}	40	52	60	60

Chapter 32: Ionizing Radiation, Nuclear Energy, and Elementary Particles

New Problems in 6e:		2, 10, 22, 28, 29, 38, 46, 54			
<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>	<i>5e</i>	<i>6e</i>
1	5	19	19	37	–
2	–	20	44	38	36
3	3	21	21	39	39
4	42	22	14	40	40
5	1	23	23	41	4
6	6	24	48	42	41
7	9	25	24	43	43
8	8	26	26	44	20
9	7	27	27	45	31
10	–	28	30	46	–
11	11	29	–	47	47
12	–	30	45	48	25
13	13	31	32	49	49
14	12	32	33	50	50
15	15	33	34	51	51
16	16	34	35	52	52
17	17	35	37	53	53
18	{18}	36	–		