

# Kennamer Solutions

## Chapter 1 Math as a Healthcare Function

### Self-Assessment Pretest

Self-Assessment Pretest answers require a personal response.

## Chapter 2 Numerical Systems

### Self-Assessment Pretest

Question	Solution
1	4
2	13
3	1154
4	6
5	8
6	26
7	19
8	190
9	1973
10	1965
11	MMVI
12	XVIII
13	XCVIII
14	MMMCDLXVI
15	CCXXXI
16	DCCLXXVIII
17	CDLXV
18	II
19	LXXII
20	CII

### Skill Sharpener 2.2

Question	Solution
1	26
2	652
3	603
4	1,151
5	138
6	1,965
7	2,001
8	3,540

9	26
10	660

### Skill Sharpener 2.3

Question	Solution
1	CXLVIII
2	MMMCDXXX
3	CCCXII
4	CDLIX
5	MCCCLXXXIV
6	MCCL
7	XXXVIII
8	CCCLXV
9	MMMCXVII
10	CCCXXXIII

## Chapter 3 Measurement Systems

### Self-Assessment Pretest

Question	Solution
1	A
2	C
3	C
4	A
5	A
6	A
7	B
8	B
9	B
10	B

### Skill Sharpener 3.2 (p.22)

Question	Solution
1	4 gr
2	$\frac{2}{3}$ dr, $\frac{2}{3}$ <del>3</del>
3	6 oz, 6 <del>3</del>
4	4 lb

8	weight	multiple
9	weight	multiple
10	length	fractional

### Chapter 1 Self-Assessment Posttest

Question	Solution
1	A
2	C
3	C
4	A
5	A
6	A
7	B
8	B
9	B
10	B

### Chapter 2 Whole Number Review

#### Self-Assessment Pretest

Question	Solution
1	24
2	43
3	68
4	93
5	1
6	32
7	998
8	3,292
9	56,632
10	750
11	124
12	366
13	89,977
14	4,955
15	324
16	10,922
17	390
18	12
19	13,545
20	10
21	123

22	9,868
23	13,243
24	45,888
25	990
26	785
27	78,900
28	200
29	43,542
30	65,400
31	13,390
32	78,980
33	32,434
34	1,200
35	9,878
36	45,000
37	125,000
38	454,302
39	500,964
40	231,493
41	14,390
42	54,372
43	299,987
44	298,873
45	12,098
46	34,094
47	150,990
48	54,000
49	893,804
50	434,000
51	756,321
52	1,237,434
53	34,343,665
54	1,206,900
55	2,987,655
56	45,443,345
57	656,959
58	2,124,000
59	456,222
60	9,040,000
61	<
62	<
63	>

64	<
65	>
66	>
67	<
68	=
69	>
70	>
71	100, 1234, 34323, 54323
72	343, 657, 659, 777
73	454, 654, 656, 7686
74	111, 112, 121, 222
75	342, 343, 454, 544
76	343, 345, 346, 365
77	394, 493, 873, 878
78	300, 392, 394, 398
79	482, 483, 849, 940
80	345, 433, 493, 984
81	460
82	7,700
83	880
84	980
85	1,290
86	330
87	790
88	900
89	490
90	430
91	3,500
92	54,500
93	34,600
94	1,200
95	78,600
96	22,000
97	4,300
98	55,300
99	98,900
100	430,000
101	34,000
102	94,000
103	43,000
104	76,000
105	99,000

106	55,000
107	45,000
108	79,000
109	75,000
110	494,000
111	14
112	98
113	999
114	1,310
115	113,342
116	3,518,306
117	12,745
118	444,284
119	450,425
120	46,610,526
121	380
122	245
123	11,587
124	16,579
125	27,895
126	242,779
127	65
128	383
129	1,222
130	6,051
131	46
132	8,194
133	377,136
134	652,960
135	934,017
136	1,027,043
137	330,261,672
138	606,339
139	62,000
140	25,056
141	5
142	5
143	15 remainder 39
144	21 remainder 15
145	28 remainder 2
146	260 remainder 273
147	2,624

148	202 remainder 260
149	4
150	70 remainder 2
151	8.6
152	17.4
153	437.4
154	67.3
155	720
156	7,738.6
157	70.67
158	38
159	507.8
160	103

### Skill Sharpener 2.2

Question	Solution
1	34,506
2	23,559
3	123
4	463
5	5,463
6	93,701
7	912
8	83
9	987
10	583
11	34,506
12	93,659
13	123
14	403
15	5,463
16	93,101
17	912
18	43
19	927
20	583
21	34,506
22	23,359

23	123
24	443

25	5,463
26	93,801
27	915
28	4321
29	967
30	583
31	34,506
32	23,755
33	123,243
34	423,870
35	5,443
36	93,890
37	9,142
38	43,809
39	98,701
40	500,000
41	34,506
42	23,615
43	123,900
44	232,423
45	55,423
46	93,800
47	95,232
48	431,231
49	987,000
50	500,048
51	hundred
52	hundred thousand
53	one
54	ten
55	ten
56	hundred
57	thousand
58	hundred thousand



59	ten thousand
60	thousand

### Skill Sharpener 2.3

Question	Solution
1	<
2	<
3	<
4	>
5	<
6	<
7	>
8	>
9	<
10	<

### Skill Sharpener 2.4

Question	Solution
1	1, 3, 23, 32, 54
2	4, 6, 16, 54, 67
3	4, 34, 35, 41, 43
4	5, 6, 7, 76, 78
5	3, 6, 34, 54, 76
6	9, 21, 34, 76, 342
7	1, 3, 23, 54, 456
8	2, 3, 9, 45, 87
9	3, 4, 34, 43, 343
10	342, 343, 354, 454, 643

### Skill Sharpener 2.5

Question	Solution
1	10
2	450
3	850
4	20
5	100
6	7,560
7	910
8	30
9	80
10	100
11	1,300
12	1,000
13	500

14	300
15	800
16	9,900
17	500
18	200
19	100
20	4,000
21	46,000
22	43,000
23	3,000
24	57,000
25	191,000
26	342,000
27	1,000
28	65,000
29	398,000
30	2,000
31	343,838,837,120
32	343,838,837,100
33	343,838,837,000
34	343,838,840,000
35	343,838,800,000
36	343,839,000,000
37	343,840,000,000
38	343,800,000,000
39	344,000,000,000
40	340,000,000,000

### Skill Sharpener 2.6

Question	Solution
1	147
2	1,252
3	13,239
4	142
5	13
6	34,641
7	533
8	2,445
9	555
10	10,209
11	2,629
12	556
13	1,531

14	344
15	6,604
16	12,331
17	2,356
18	62,465
19	4,322
20	26,339

### Skill Sharpener 2.7

Question	Solution
1	9
2	118
3	953
4	181,725
5	757,555
6	40,530
7	958
8	327
9	7,255,910
10	69,668

### Skill Sharpener 2.8

Question	Solution
1	408
2	162,932
3	102,810
4	257,784,736
5	23,190,609,204
6	107,067
7	176,400
8	208,756,235,669
9	39,583,516
10	1,530,306

### Skill Sharpener 2.9

Question	Solution
1	6
2	18 r 283
3	835 r113
4	3032
5	183 r59
6	438,135 r800
7	130
8	2,083 r20

9	247 r78
10	81,252,858 r6

### Skill Sharpener 2.10

Question	Solution
1	93
2	154.33
3	247.2
4	1,100.4
5	906.8
6	89
7	13,045.67
8	2,900.33
9	4,815.67
10	14,786.67

### Chapter 2 Self-Assessment Posttest

Question	Solution
1	24
2	43
3	68
4	93
5	1
6	32
7	998
8	3,292
9	56,632
10	750
11	124
12	366
13	89,977
14	4,955
15	324
16	10,922
17	390
18	12
19	13,545
20	10
21	123
22	9,868
23	13,243
24	45,888

25	990
26	785
27	78,900
28	200
29	43,542
30	65,400
31	13,390
32	78,980
33	32,434
34	1,200
35	9,878
36	45,000
37	125,000
38	454,302
39	500,964
40	231,493
41	14,390
42	54,372
43	299,987
44	298,873
45	12,098
46	34,094
47	150,990
48	54,000
49	893,804
50	434,000
51	756,321
52	1,237,434
53	34,343,665
54	1,206,900
55	2,987,655
56	45,443,345
57	656,959
58	2,124,000
59	456,222
60	9,040,000
61	<
62	<
63	>
64	<
65	>
66	>

67	<
68	=
69	>
70	>
71	100, 1234, 34323, 54323
72	343, 657, 659, 777
73	454, 654, 656, 7686
74	111, 112, 121, 222
75	342, 343, 454, 544
76	343, 345, 346, 365
77	394, 493, 873, 878
78	300, 392, 394, 398
79	482, 483, 849, 940
80	345, 433, 493, 984
81	460
82	7,700
83	880
84	980
85	1,290
86	330
87	790
88	900
89	490
90	430
91	3,500
92	54,500
93	34,600
94	1,200
95	78,600
96	22,000
97	4,300
98	55,300
99	98,900
100	430,000
101	34,000
102	94,000
103	43,000
104	76,000
105	99,000
106	55,000
107	45,000
108	79,000

109	75,000
110	494,000
111	14
112	98
113	999
114	1,310
115	113,342
116	3,518,306
117	12,745
118	444,284
119	450,425
120	46,610,526
121	380
122	245
123	11,587
124	16,579
125	27,895
126	242,779
127	65
128	383
129	1,222
130	6,051
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134	652,960
135	934,017
136	1,027,043
137	330,261,672
138	606,339
139	62,000
140	25,056
141	5
142	5
143	15 r 39
144	21 r 15
145	28 r 2
146	260 r 273
147	2,624
148	202 r 260
149	4
150	70 r 2

151	8.6
152	17.4
153	437.4
154	67.3
155	720
156	7,738.6
157	70.67
158	38
159	507.8
160	103

## Chapter 3 Decimals

### Self-Assessment Pretest

Question	Solution
1	45.34
2	692.00
3	212.932
4	32.393
5	785.112
6	3,214.190
7	9,950.250
8	451.564
9	34,590.673
10	23,321.500
11	54.780
12	6,790.3832
13	356.121
14	100.96
15	4,341.5550
16	67,650.341
17	900.9100
18	15,250.375
19	8.325
20	100.875
21	34.1230
22	500.3309
23	65.9010
24	750.8743
25	3,500.5300
26	355.1250



# Kenamer, Workbook for Math for Health Care Professionals-- Solutions

## Chapter 1 Math as a Healthcare Function

### Objective 1.1

1. Hard skills include starting intravenous lines and taking an x-ray.
2. Soft skills include communicating with patients and their family member and reading.
3. You use the numerical system to tell what time it is and to make proportions to make coffee. Paying for lunch would utilize decimals. You may use percentages to figure sales tax and the soda you purchase may be packaged in a bottle measured in liters.

### Objective 1.3

4. *Emergency Room Nurse* – medication calculations, converting patient weights to kilograms, and entering data in a computer

*Respiratory Therapist* – setting up a ventilator, medication calculations and analyzing arterial blood gas results.

*Laboratory Technician* – analyzing blood tests, documenting patient test results, and checking supply inventory

*Paramedic* – medication calculations, converting patient weights to kilograms, and calculating mileage

*Intensive Care Nurse* – medication calculations, determining amount of fluid remaining in a patient’s IV bag and documenting patient data

## Chapter 2 Numerical Systems

### Objective 2.1

1.

I = 1

C = 100

V = 5

D = 500

X = 10

M = 1000

L = 50

2. 0 1 2 3 4 5 6 7 8 9

### Objective 2.2

Question	Solution
1	n/a

87	DCCCLXXVI
88	CML
89	XC
90	DI
91	XXXIX
92	XLIII
93	LXXXVI
94	CCLXIII
95	CCCLXXXIX
96	CDLXIII
97	LXXII
98	MMMDCCLXXXIX
99	LXIII
100	VIII
101	X
102	MMDCLVII

## Chapter 3 Measurement Systems

### Objective 3.1

Question	Solution
1	apothecary
2	household
3	metric

### Objective 3.2

Question	Solution
4	dram
5	grain
6	ounce
7	pound
8	fluidounce
9	fluid dram
10	gallon
11	minim
12	pint
13	quart

### Objective 3.3

Question	Solution
14	drop
15	teaspoon