In the pre-calculator days, math texts had the following table in the back of the book:

x		sin(x)	cos(x)	tan(x)	cot(x)	csc(x)	sec(x)
deg	rad						
0	0	0.0000	1.0000	0.0000			1.0000
1	0.0175	0.0175	0.9998	0.0175	57.2900	57.2987	1.0002
2	0.0349	0.0349	0.9994	0.0349	28.6363	28.6537	1.0006
3	0.0524	0.0523	0.9986	0.0524	19.0811	19.1073	1.0014
4	0.0698	0.0698	0.9976	0.0699	14.3007	14.3356	1.0024
5	0.0873	0.0872	0.9962	0.0875	11.4301	11.4737	1.0038
6	0.1047	0.1045	0.9945	0.1051	9.5144	9.5668	1.0055
7	0.1222	0.1219	0.9925	0.1228	8.1443	8.2055	1.0075
8	0.1396	0.1392	0.9903	0.1405	7.1154	7.1853	1.0098
9	0.1571	0.1564	0.9877	0.1584	6.3138	6.3925	1.0125
10	0.1745	0.1736	0.9848	0.1763	5.6713	5.7588	1.0154
11	0.192	0.1908	0.9816	0.1944	5.1446	5.2408	1.0187
12	0.2094	0.2079	0.9781	0.2126	4.7046	4.8097	1.0223
13	0.2269	0.2250	0.9744	0.2309	4.3315	4.4454	1.0263
14	0.2443	0.2419	0.9703	0.2493	4.0108	4.1336	1.0306
15	0.2618	0.2588	0.9659	0.2679	3.7321	3.8637	1.0353
16	0.2793	0.2756	0.9613	0.2867	3.4874	3.6280	1.0403
17	0.2967	0.2924	0.9563	0.3057	3.2709	3.4203	1.0457
18	0.3142	0.3090	0.9511	0.3249	3.0777	3.2361	1.0515
19	0.3316	0.3256	0.9455	0.3443	2.9042	3.0716	1.0576
20	0.3491	0.3420	0.9397	0.3640	2.7475	2.9238	1.0642
21	0.3665	0.3584	0.9336	0.3839	2.6051	2.7904	1.0711
22	0.384	0.3746	0.9272	0.4040	2.4751	2.6695	1.0785
23	0.4014	0.3907	0.9205	0.4245	2.3559	2.5593	1.0864
24	0.4189	0.4067	0.9135	0.4452	2.2460	2.4586	1.0946
25	0.4363	0.4226	0.9063	0.4663	2.1445	2.3662	1.1034
26	0.4538	0.4384	0.8988	0.4877	2.0503	2.2812	1.1126
27	0.4712	0.4540	0.8910	0.5095	1.9626	2.2027	1.1223
28	0.4887	0.4695	0.8829	0.5317	1.8807	2.1301	1.1326
29	0.5061	0.4848	0.8746	0.5543	1.8040	2.0627	1.1434
30	0.5236	0.5000	0.8660	0.5774	1.7321	2.0000	1.1547
31	0.5411	0.5150	0.8572	0.6009	1.6643	1.9416	1.1666
32	0.5585	0.5299	0.8480	0.6249	1.6003	1.8871	1.1792
33	0.576	0.5446	0.8387	0.6494	1.5399	1.8361	1.1924
34	0.5934	0.5592	0.8290	0.6745	1.4826	1.7883	1.2062
35	0.6109	0.5736	0.8192	0.7002	1.4281	1.7434	1.2208
36	0.6283	0.5878	0.8090	0.7265	1.3764	1.7013	1.2361
37	0.6458	0.6018	0.7986	0.7536	1.3270	1.6616	1.2521
38	0.6632	0.6157	0.7880	0.7813	1.2799	1.6243	1.2690
39	0.6807	0.6293	0.7771	0.8098	1.2349	1.5890	1.2868
40	0.6981	0.6428	0.7660	0.8391	1.1918	1.5557	1.3054
41	0.7156	0.6561	0.7547	0.8693	1.1504	1.5243	1.3250
42	0.733	0.6691	0.7431	0.9004	1.1106	1.4945	1.3456
43	0.7505	0.6820	0.7314	0.9325	1.0724	1.4663	1.3673
44	0.7679	0.6947	0.7193	0.9657	1.0355	1.4396	1.3902
45	0.7854	0.7071	0.7071	1.0000	1.0000	1.4142	1.4142

1. Explain how this table could be used to find an approximation for sec72°.

2. Explain how you could use this table to approximate sin20°30′.

3. Explain how you could use this table to approximate sin20°11′.