



(9—181.)

DEPARTMENT OF THE INTERIOR.

U. S. GEOLOGICAL SURVEY.

Vapor Pressure, Dew-Point, and Relative Humidity Tables.

ADAPTED TO THE

WHIRLED (OR SLING) PSYCHROMETER.

Construction and Use of the Tables.

The psychrometric formula determined by Prof. Wm. Ferrel, and the accompanying tables based upon it, are adopted for use in obtaining the vapor pressure, dew-point, and relative humidity by means of the whirled or sling psychrometer. The velocity of the whirling should be at least ten feet per second; it will not matter how much more the velocity is increased.

The formula expressed in English measures is—

$$p = p_1 - 0.000367 P (t - t_1) \left(1 + \frac{t - t_1}{1571} \right)$$

in which

t = the temperature of the air.

t_1 = the temperature of the wet-bulb thermometer.

p = the vapor pressure.

p_1 = the pressure of saturation at the temperature of the wet-bulb thermometer.

P = the barometric pressure.

Table I, with $t = t_1$ as an argument, gives the value of p_1 , the first term of the expression of p , as given above.

Table II, with $t - t_1$ and P as arguments, gives the value of the second term of the expression. We then have—

Vapor pressure, p = Table I.—Table II.

The value of t in Table I, corresponding to the value of p , thus obtained, is the value of the dew-point d .

Table III, with t and $t - d$, as arguments, then gives the relative humidity R .

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EXAMPLES.

1. Given $t = 84^\circ.3$; $t_1 = 66^\circ.7$; and $P = 30.00$ inches, to find p , d , and R .

Table I, with $t = t_1 = 66^\circ.7$, gives $p_1 = 0.654$ inches.

Table II, with $t - t_1 = 84^\circ.3 - 66^\circ.7 = 17^\circ.6$ and $P = 30.00$ inches, as arguments, gives 0.196 inches as the value of the last term of the expression above. Hence we have, $p = 0.654 - 0.196 = 0.458$. The value of t (Table I) corresponding with this value of p is the dew-point, $d = 56^\circ.6$.

Table III, with $t = 84^\circ.3$ and $t - d = 84^\circ.3 - 56^\circ.6 = 27^\circ.7$ as arguments, then gives $R = 39$.

2. Given $t = 34^\circ.5$; $t_1 = 29^\circ.4$; and $P = 22.3$ inches, to find p , d , and R .

Table I, with $t = t_1 = 29^\circ.4$, gives $p_1 = 0.162$ inches.

Table II, with $t - t_1 = 34^\circ.5 - 29^\circ.4 = 5^\circ.1$ and $P = 22.5$ inches (the nearest value in the table to 22.3 inches), as arguments, gives 0.042 inch as the value of the second term of the expression of p . Hence we have $p = 0.162 - 0.042 = 0.120$ inch.

The value of t in Table I, corresponding with this value of p , is the dew-point $d = 22^\circ.0$.

Table III, with $t = 34^\circ.5$ and $t - d = 34.5 - 22.0 = 12^\circ.5$, as arguments, then gives $R = 60$.

NOTE.—In obtaining the part in Table II, belonging to the tenths of the argument, take one-tenth of the value belonging to so many degrees; for instance, in example No. 1, the part for 17° is 0.189, and that for $0^\circ.6$, one-tenth of .066 or .007. Hence we get $0.189 + 0.007 = 0.196$.

TABLE I.—*Pressure of aqueous vapor.*

<i>t</i>	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	<i>t</i>	<i>t</i>	0°.0	0°.1	0°.2	0°.3	0°.4	0°.5	0°.6	0°.7	0°.8	0°.9	<i>t</i>
°	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	°	°	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>	°
—30	0.009	0.009	0.008	0.008	0.007	0.007	0.007	0.006	0.006	0.006	—30	70	0.732	0.734	0.737	0.739	0.742	0.744	0.746	0.749	0.752	0.755	70
—20	0.017	0.016	0.015	0.014	0.013	0.013	0.012	0.011	0.011	0.010	—20	71	0.757	0.760	0.762	0.765	0.768	0.770	0.773	0.775	0.778	0.781	71
												72	0.783	0.786	0.789	0.791	0.794	0.797	0.799	0.802	0.805	0.807	72
—10	0.028	0.027	0.025	0.024	0.023	0.022	0.021	0.020	0.019	0.018	—10	73	0.810	0.813	0.816	0.818	0.821	0.824	0.827	0.830	0.832	0.835	73
—0	0.045	0.043	0.041	0.039	0.037	0.035	0.034	0.032	0.031	0.029	—0	74	0.838	0.841	0.843	0.846	0.849	0.852	0.855	0.858	0.860	0.863	74
+0	0.045	0.047	0.049	0.052	0.054	0.057	0.060	0.062	0.065	0.068	+0												
10	0.071	0.074	0.078	0.081	0.084	0.088	0.092	0.096	0.100	0.105	10	75	0.866	0.869	0.872	0.875	0.878	0.881	0.884	0.887	0.890	0.893	75
20	0.110	0.115	0.120	0.125	0.130	0.135	0.141	0.147	0.153	0.160	20	76	0.896	0.899	0.902	0.905	0.908	0.911	0.914	0.917	0.920	0.923	76
												77	0.926	0.929	0.932	0.935	0.938	0.941	0.944	0.947	0.950	0.953	77
												78	0.956	0.959	0.963	0.966	0.969	0.972	0.976	0.979	0.982	0.985	78
												79	0.989	0.991	0.995	0.998	1.001	1.005	1.008	1.011	1.015	1.018	79
	0°.0	0°.1	0°.2	0°.3	0°.4	0°.5	0°.6	0°.7	0°.8	0°.9		80	1.022	1.025	1.028	1.031	1.035	1.038	1.042	1.045	1.048	1.052	80
30	0.166	0.167	0.168	0.168	0.169	0.170	0.170	0.171	0.172	0.173	30	81	1.056	1.059	1.062	1.066	1.069	1.073	1.076	1.080	1.083	1.087	81
31	0.173	0.174	0.175	0.175	0.176	0.177	0.177	0.178	0.179	0.180	31	82	1.090	1.094	1.097	1.101	1.104	1.108	1.111	1.115	1.119	1.123	82
32	0.180	0.181	0.182	0.183	0.183	0.184	0.185	0.186	0.187	0.187	32	83	1.126	1.130	1.134	1.137	1.141	1.145	1.148	1.152	1.156	1.160	83
33	0.188	0.188	0.189	0.190	0.190	0.191	0.192	0.193	0.194	0.194	33	84	1.163	1.167	1.171	1.175	1.178	1.182	1.186	1.190	1.194	1.197	84
34	0.195	0.196	0.197	0.197	0.198	0.199	0.200	0.200	0.201	0.202	34	85	1.201	1.205	1.209	1.213	1.217	1.221	1.225	1.228	1.232	1.236	85
35	0.203	0.204	0.204	0.205	0.206	0.207	0.208	0.208	0.209	0.210	35	86	1.240	1.244	1.248	1.253	1.256	1.260	1.264	1.268	1.272	1.276	86
36	0.211	0.212	0.213	0.213	0.214	0.215	0.216	0.217	0.218	0.219	36	87	1.280	1.284	1.288	1.292	1.297	1.301	1.305	1.309	1.313	1.317	87
37	0.219	0.220	0.221	0.222	0.223	0.224	0.225	0.225	0.226	0.227	37	88	1.321	1.326	1.330	1.334	1.338	1.343	1.347	1.351	1.355	1.360	88
38	0.228	0.229	0.230	0.231	0.232	0.233	0.234	0.234	0.235	0.236	38	89	1.364	1.368	1.373	1.377	1.382	1.386	1.390	1.395	1.399	1.403	89
39	0.237	0.238	0.239	0.240	0.241	0.242	0.243	0.244	0.245	0.246	39	90	1.408	1.412	1.417	1.421	1.426	1.430	1.435	1.439	1.444	1.448	90
40	0.247	0.248	0.248	0.249	0.250	0.251	0.252	0.253	0.254	0.255	40	91	1.453	1.457	1.462	1.467	1.471	1.476	1.480	1.485	1.490	1.494	91
41	0.256	0.257	0.258	0.259	0.260	0.261	0.262	0.263	0.264	0.265	41	92	1.499	1.504	1.508	1.513	1.518	1.523	1.527	1.532	1.537	1.542	92
42	0.266	0.267	0.268	0.269	0.270	0.271	0.272	0.273	0.274	0.275	42	93	1.546	1.551	1.556	1.561	1.566	1.571	1.576	1.580	1.585	1.590	93
43	0.277	0.278	0.279	0.280	0.281	0.282	0.283	0.284	0.285	0.286	43	94	1.595	1.600	1.605	1.610	1.615	1.620	1.625	1.630	1.635	1.640	94
44	0.288	0.288	0.289	0.290	0.292	0.293	0.294	0.295	0.296	0.297	44	95	1.645	1.650	1.655	1.660	1.665	1.670	1.675	1.681	1.686	1.691	95
45	0.299	0.300	0.301	0.302	0.303	0.304	0.305	0.306	0.307	0.309	45	96	1.696	1.701	1.707	1.712	1.717	1.722	1.728	1.733	1.738	1.743	96
46	0.310	0.311	0.312	0.313	0.315	0.316	0.317	0.318	0.319	0.320	46	97	1.749	1.754	1.760	1.765	1.771	1.776	1.781	1.787	1.792	1.798	97
47	0.322	0.323	0.324	0.325	0.327	0.328	0.329	0.330	0.332	0.333	47	98	1.803	1.809	1.814	1.820	1.825	1.831	1.836	1.842	1.848	1.853	98
48	0.334	0.335	0.337	0.338	0.339	0.340	0.342	0.343	0.344	0.345	48	99	1.859	1.865	1.870	1.876	1.882	1.887	1.893	1.899	1.905	1.910	99
49	0.347	0.348	0.349	0.351	0.352	0.353	0.355	0.356	0.357	0.358	49	100	1.916	1.922	1.928	1.934	1.940	1.945	1.951	1.957	1.963	1.969	100
50	0.360	0.361	0.362	0.364	0.365	0.366	0.368	0.369	0.370	0.372	50	101	1.975	1.981	1.987	1.993	1.999	2.005	2.011	2.017	2.023	2.029	101
51	0.373	0.375	0.376	0.377	0.379	0.380	0.382	0.383	0.384	0.386	51	102	2.035	2.041	2.047	2.053	2.060	2.066	2.072	2.078	2.084	2.091	102
52	0.387	0.389	0.390	0.391	0.393	0.394	0.396	0.397	0.399	0.400	52	103	2.097	2.103	2.109	2.116	2.122	2.128	2.134	2.141	2.147	2.154	103
53	0.402	0.403	0.405	0.406	0.408	0.409	0.411	0.412	0.414	0.415	53	104	2.160	2.166	2.173	2.179	2.186	2.192	2.199	2.205	2.212	2.218	104
54	0.417	0.418	0.420	0.421	0.422	0.424	0.426	0.427	0.429	0.430	54	105	2.225	2.232	2.238	2.244	2.251	2.257	2.265	2.271	2.278	2.284	105
55	0.432	0.434	0.435	0.437	0.438	0.440	0.442	0.443	0.445	0.446	55	106	2.291	2.299	2.305	2.311	2.318	2.325	2.333	2.339	2.346	2.352	106
56	0.448	0.450	0.451	0.453	0.455	0.456	0.458	0.459	0.461	0.463	56	107	2.359	2.367	2.374	2.381	2.388	2.395	2.403	2.409	2.417	2.423	107
57	0.465	0.466	0.468	0.470	0.471	0.473	0.475	0.476	0.478	0.480	57	108	2.429	2.438	2.445	2.453	2.460	2.467	2.475	2.481	2.490	2.496	108
58	0.482	0.483	0.485	0.487	0.488	0.490	0.492	0.494	0.495	0.497	58	109	2.501	2.510	2.517	2.525	2.532	2.538	2.546	2.553	2.562	2.569	109
59	0.499	0.501	0.503	0.505	0.506	0.508	0.510	0.512	0.513	0.515	59												
60	0.517	0.519	0.521	0.522	0.524	0.526	0.528	0.529	0.532	0.534	60	110	2.575	2.582	2.590	2.597	2.605	2.613	2.620	2.628	2.636	2.643	110
61	0.536	0.537	0.539	0.541	0.543	0.545	0.547	0.549	0.551	0.553	61	111	2.651	2.658	2.666	2.674	2.682	2.690	2.697	2.705	2.713	2.721	111
62	0.555	0.557	0.559	0.561	0.563	0.565	0.567	0.569	0.571	0.573	62	112	2.729	2.737	2.745	2.753	2.761	2.769	2.777	2.785	2.793	2.801	112
63	0.575	0.577	0.579	0.581	0.583	0.585	0.587	0.589	0.591	0.593	63	113	2.809	2.817	2.825	2.833	2.841	2.850	2.858	2.866	2.874	2.882	113
64	0.595	0.597	0.599	0.601	0.604	0.606	0.608	0.610	0.612	0.614	64	114	2.891	2.899	2.907	2.916	2.925	2.932	2.940	2.948	2.957	2.965	114
												115	2.974	2.982	2.990	2.999	3.007	3.016	3.024	3.033	3.041	3.050	115
65	0.616	0.618	0.621	0.623	0.625	0.627	0.629	0.631	0.634	0.636	65	116	3.059	3.067	3.076	3.085	3.094	3.103	3.111	3.120	3.129	3.138	116
66	0.638	0.640	0.643	0.645	0.647	0.649	0.651	0.654	0.656	0.658	66	117	3.147	3.156	3.165	3.174	3.183	3.192	3.201	3.210	3.219	3.228	117
67	0.661	0.663	0.665	0.667	0.670	0.672	0.674	0.677	0.679	0.681	67	118	3.237	3.246	3.255	3.264	3.273	3.283	3.292	3.301	3.310	3.319	118
68	0.684	0.686	0.688	0.691	0.693	0.695	0.698	0.700	0.703	0.705	68	119	3.328	3.337	3.346	3.355	3.364	3.374	3.383	3.392	3.401	3.410	119
69	0.707	0.710	0.712	0.715	0.717	0.720	0.722	0.724	0.727	0.729	69												

TABLE II—Values of $0.000367 P (t-t_1) \left(1 + \frac{t-t_1}{1571}\right)$.

Arguments: $t-t_1$ and P .

$t-t_1$		Barometric pressure P in inches.																								$t-t_1$	
		30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.5	25.0	24.5	24.0	23.5	23.0	22.5	22.0	21.5	21.0	20.5	20.0	19.5	19.0		
°		Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	°
1		.011	.011	.011	.011	.010	.010	.010	.010	.010	.009	.009	.009	.009	.009	.008	.008	.008	.008	.008	.008	.007	.007	.007	.007	.007	1
2		.022	.022	.022	.021	.021	.021	.020	.020	.019	.019	.019	.018	.018	.017	.017	.016	.016	.016	.015	.015	.015	.014	.014	.014	.014	2
3		.034	.033	.033	.032	.031	.031	.030	.030	.029	.029	.028	.027	.028	.026	.025	.025	.024	.024	.023	.023	.022	.021	.021	.020	.020	3
4		.045	.044	.043	.043	.042	.041	.040	.040	.039	.038	.038	.037	.036	.035	.034	.033	.032	.032	.031	.030	.029	.029	.028	.027	.027	4
5		.056	.055	.054	.053	.052	.052	.051	.050	.049	.048	.047	.046	.045	.044	.043	.042	.041	.040	.039	.038	.037	.036	.035	.034	.034	5
6		.067	.066	.065	.064	.063	.062	.061	.060	.059	.057	.056	.055	.054	.053	.052	.051	.050	.049	.048	.046	.045	.044	.043	.042	.041	6
7		.079	.077	.076	.075	.073	.072	.071	.070	.068	.067	.066	.064	.063	.062	.061	.059	.058	.057	.055	.054	.053	.052	.050	.049	.048	7
8		.090	.088	.087	.086	.084	.083	.081	.080	.078	.077	.075	.074	.072	.071	.070	.068	.066	.065	.063	.062	.060	.059	.057	.056	.055	8
9		.101	.099	.098	.096	.095	.093	.091	.090	.088	.086	.085	.083	.081	.080	.078	.076	.075	.073	.071	.070	.068	.066	.064	.063	.061	9
10		.113	.111	.109	.107	.105	.103	.102	.100	.098	.096	.094	.092	.090	.089	.087	.085	.083	.081	.079	.077	.076	.074	.072	.070	.068	10
11		.124	.122	.120	.118	.116	.114	.112	.110	.108	.106	.104	.102	.100	.097	.095	.093	.091	.089	.087	.085	.083	.081	.079	.077	.075	11
12		.135	.133	.131	.129	.126	.124	.122	.120	.118	.115	.113	.111	.109	.106	.104	.102	.100	.097	.095	.093	.091	.089	.086	.084	.082	12
13		.147	.144	.142	.140	.137	.135	.132	.130	.127	.125	.123	.120	.118	.115	.113	.110	.108	.106	.103	.101	.098	.096	.093	.091	.089	13
14		.158	.156	.153	.150	.148	.145	.143	.140	.137	.135	.132	.130	.127	.124	.122	.119	.117	.114	.111	.109	.106	.104	.101	.098	.095	14
15		.170	.167	.164	.161	.158	.156	.153	.150	.147	.144	.142	.139	.136	.133	.131	.128	.125	.122	.119	.117	.114	.111	.108	.105	.102	15
16		.181	.178	.175	.172	.169	.166	.163	.160	.157	.154	.151	.148	.145	.142	.139	.136	.133	.130	.127	.124	.121	.118	.116	.113	.110	16
17		.192	.189	.186	.183	.180	.177	.173	.170	.167	.164	.161	.158	.155	.151	.148	.145	.142	.139	.135	.132	.129	.126	.123	.120	.117	17
18		.204	.200	.197	.194	.190	.187	.184	.180	.177	.174	.170	.167	.164	.160	.157	.154	.151	.147	.143	.140	.137	.134	.130	.127	.124	18
19		.215	.212	.208	.205	.201	.198	.194	.191	.187	.183	.180	.176	.173	.169	.166	.162	.159	.155	.152	.148	.144	.141	.137	.134	.131	19
20		.227	.223	.219	.216	.212	.208	.204	.201	.197	.193	.190	.186	.182	.178	.175	.171	.167	.163	.160	.156	.152	.148	.144	.141	.137	20
21		.238	.234	.230	.226	.223	.219	.215	.211	.207	.203	.199	.195	.191	.187	.183	.180	.176	.172	.168	.164	.160	.156	.152	.148	.144	21
22		.250	.246	.242	.237	.233	.229	.225	.221	.217	.213	.209	.205	.201	.196	.192	.188	.184	.180	.176	.172	.168	.164	.160	.155	.151	22
23		.261	.257	.253	.248	.244	.240	.236	.231	.227	.223	.218	.214	.210	.205	.201	.197	.193	.188	.184	.180	.175	.171	.167	.163	.158	23
24		.273	.268	.264	.259	.255	.250	.246	.241	.237	.233	.228	.224	.219	.214	.210	.205	.201	.196	.192	.188	.183	.179	.174	.170	.165	24
25		.284	.280	.275	.270	.266	.261	.256	.252	.247	.242	.238	.233	.228	.223	.219	.214	.210	.205	.200	.196	.191	.186	.181	.177	.172	25
26		.296	.291	.286	.281	.277	.272	.267	.262	.257	.252	.247	.243	.238	.233	.228	.223	.218	.213	.208	.203	.199	.194	.189	.184	.179	26
27		.307	.302	.297	.292	.287	.282	.277	.272	.267	.262	.257	.252	.247	.242	.237	.232	.227	.222	.216	.211	.206	.201	.196	.191	.186	27
28		.319	.314	.309	.303	.298	.293	.288	.282	.277	.272	.267	.261	.256	.251	.245	.240	.235	.230	.225	.219	.214	.209	.203	.198	.193	28
29		.331	.325	.320	.314	.309	.304	.298	.293	.287	.282	.276	.271	.266	.260	.254	.249	.244	.238	.233	.227	.222	.216	.211	.206	.200	29
30		.342	.337	.331	.325	.320	.314	.309	.303	.297	.292	.286	.281	.275	.269	.263	.258	.252	.247	.241	.235	.230	.224	.218	.213	.207	30
31		.354	.348	.342	.336	.331	.325	.319	.313	.307	.302	.296	.290	.284	.278	.272	.267	.261	.255	.249	.243	.238	.232	.226	.220	.214	31
32		.365	.359	.354	.348	.342	.336	.330	.324	.318	.312	.306	.300	.294	.287	.281	.275	.269	.263	.257	.251	.245	.239	.233	.227	.221	32
33		.377	.371	.365	.359	.352	.346	.340	.334	.328	.322	.315	.309	.303	.296	.290	.284	.278	.272	.266	.259	.253	.247	.241	.235	.229	33
34		.389	.382	.376	.370	.363	.357	.351	.344	.338	.331	.325	.319	.312	.306	.299	.293	.286	.280	.274	.267	.261	.255	.248	.242	.236	34
35		.401	.394	.387	.381	.374	.368	.361	.355	.348	.341	.335	.328	.322	.315	.308	.302	.295	.289	.282	.275	.268	.262	.255	.249	.243	35
36		.412	.405	.399	.392	.385	.378	.372	.365	.358	.351	.345	.338	.331	.324	.317	.311	.304	.297	.290	.284	.277	.270	.263	.257	.250	36
37		.424	.417	.410	.403	.396	.389	.382	.375	.368	.361	.354	.347	.341	.333	.326	.319	.312	.305	.299	.292	.285	.278	.271	.264	.257	37
38		.436	.428	.421	.414	.407	.400	.393	.386	.379	.371	.364	.357	.350	.342	.335	.328	.321	.314	.307	.300	.293	.285	.278	.271	.264	38
39		.447	.440	.433	.425	.418	.411	.403	.396	.389	.381	.374	.367	.359	.352	.344	.337	.330	.322	.315	.308	.300	.293	.285	.278	.271	39
40		.459	.452	.444	.437	.429	.422	.414	.406	.399	.391	.384	.376	.369	.361	.353	.346	.338	.331	.323	.316	.308	.301	.293	.286	.278	40

TABLE III.—Relative Humidity.

Air temp. <i>t</i> .	Depression of dew-point (<i>t</i> — <i>d</i>).																														Air temp. <i>t</i> .	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		30
— 28	100	94	89	84	80	75	71	67	63	59	55	52	48																			— 28
— 24	100	95	90	85	80	76	72	68	64	60	57	53	50	47	44	41	38															— 24
— 20	100	95	90	85	80	76	72	68	64	61	57	53	51	48	46	43	40	38	36	34	32											— 20
— 16	100	95	90	86	81	77	73	69	65	62	58	55	52	49	47	44	41	40	37	35	33	31	29	27	25							— 16
— 12	100	95	90	86	82	78	74	70	66	63	60	57	54	50	48	45	42	40	38	36	34	32	30	28	27	25	24	22	21			— 12
— 8	100	95	91	86	82	78	74	71	67	64	61	58	55	52	49	47	44	41	39	37	35	33	31	29	28	26	25	23	22	20	19	— 8
— 4	100	95	91	87	83	79	75	71	68	65	62	58	56	53	50	48	45	43	41	38	36	34	32	31	29	27	26	24	23	21	20	— 4
— 0	100	96	91	87	83	79	75	72	69	65	62	59	56	54	51	49	46	44	42	39	37	35	34	32	30	29	27	25	24	23	21	0
+ 4	100	96	92	88	84	80	76	72	69	66	63	60	57	55	52	50	47	45	42	40	38	36	35	33	31	30	28	27	25	24	22	+ 4
+ 8	100	96	92	88	84	80	76	73	70	66	63	61	58	55	53	50	48	45	43	41	39	37	35	34	32	31	29	28	26	25	23	+ 8
+ 12	100	96	92	88	84	80	76	73	70	67	64	61	58	55	53	51	48	46	44	42	40	38	36	34	32	31	29	28	26	25	23	+ 12
+ 16	100	96	92	88	84	80	76	73	70	67	64	61	59	56	54	51	49	46	44	42	40	39	37	35	33	31	30	29	27	26	24	+ 16
+ 20	100	96	92	88	84	81	77	74	71	68	65	62	59	56	54	52	49	47	45	43	41	39	37	36	34	32	31	30	28	26	25	+ 20
+ 24	100	96	92	88	84	81	77	74	71	68	65	62	60	57	55	52	50	47	45	43	42	40	38	36	35	33	32	30	29	27	25	+ 24
+ 28	100	96	92	88	85	81	78	75	72	68	65	62	60	57	55	53	51	48	46	44	42	40	39	37	35	33	32	31	29	28	26	+ 28
+ 32	100	96	92	89	85	82	79	75	72	69	66	63	61	58	56	54	51	49	47	45	43	41	39	37	36	34	33	31	30	28	27	+ 32
+ 36	100	96	93	89	85	82	79	76	73	69	66	64	62	59	57	54	52	50	48	46	44	42	40	38	37	35	34	32	31	29	28	+ 36
+ 40	100	96	93	89	85	82	79	76	73	70	67	64	62	59	57	55	53	50	48	47	45	43	41	39	38	36	35	33	32	30	29	+ 40
+ 44	100	96	93	89	86	83	79	76	73	71	68	65	63	60	58	55	53	51	49	47	45	43	42	40	38	36	35	33	32	30	29	+ 44
+ 48	100	96	93	89	86	83	80	77	74	71	68	66	63	61	58	56	54	52	50	48	46	44	42	40	39	37	36	34	33	31	30	+ 48
+ 52	100	96	93	89	86	83	80	77	74	71	69	66	64	61	59	57	54	52	50	48	46	44	43	41	40	38	37	35	34	32	31	+ 52
+ 56	100	96	93	90	86	83	80	77	75	72	69	67	64	62	60	57	55	53	51	49	47	45	44	42	40	39	37	35	34	33	32	+ 56
+ 60	100	96	93	90	87	84	81	78	75	72	70	67	65	62	60	58	56	54	52	50	48	46	44	43	41	39	38	36	35	33	32	+ 60
+ 64	100	97	93	90	87	84	81	78	75	73	70	68	65	63	61	58	56	54	52	50	48	47	45	43	42	40	39	37	36	34	33	+ 64
+ 68	100	97	93	90	87	84	81	78	76	73	71	68	66	63	61	59	57	55	53	51	49	47	45	44	42	40	39	37	36	34	33	+ 68
+ 72	100	97	93	90	87	84	82	79	76	73	71	68	66	64	61	59	57	55	53	52	49	48	46	44	43	41	40	38	37	35	34	+ 72
+ 76	100	97	94	90	87	85	82	79	76	74	71	69	67	64	62	60	58	56	54	52	50	48	47	45	43	42	40	39	37	36	35	+ 76
+ 80	100	97	94	90	88	85	82	79	77	74	72	69	67	65	62	60	58	56	54	53	51	49	47	45	44	42	41	39	38	36	35	+ 80
+ 84	100	97	94	91	88	85	82	80	77	74	72	70	67	65	63	61	59	57	55	53	51	49	48	46	44	43	42	40	39	37	36	+ 84
+ 88	100	97	94	91	88	85	83	80	77	75	72	70	68	66	63	61	59	57	55	53	52	50	48	47	45	43	42	40	39	37	36	+ 88
+ 92	100	97	94	91	88	85	83	80	78	75	73	70	68	66	64	62	60	58	56	54	52	50	49	47	46	44	43	41	40	38	37	+ 92
+ 96	100	97	94	91	88	86	83	80	78	75	73	71	69	66	64	62	60	58	56	55	53	51	49	48	46	45	44	42	40	39	38	+ 96
+ 100	100	97	94	91	88	86	83	81	78	76	73	71	69	67	65	63	61	59	57	55	53	52	50	48	47	45	44	42	41	39	38	+ 100
+ 104	100	97	94	91	89	86	83	81	78	76	74	71	69	67	65	63	61	59	57	56	54	53	51	49	47	46	45	43	41	40	39	+ 104
+ 108	100	97	94	92	89	86	84	81	79	76	74	72	70	68	66	64	62	60	58	56	54	53	51	49	48	46	45	43	42	40	39	+ 108
+ 112	100	97	94	92	89	86	84	82	79	77	74	72	70	68	66	64	62	60	58	57	55	54	52	50	48	47	46	44	43	41	40	+ 112
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

Air temp. <i>t</i> .	Depression of dew-point (<i>t</i> — <i>d</i>).															Air temp. <i>t</i> .	Depression of dew-point (<i>t</i> — <i>d</i>).													Air temp. <i>t</i> .				
	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72		75	30	33	36	39	42	45	48	51	54	57	60	63		66	69	72	75
— 8	19																52	31	27	24	21	18	16	14	12	10	9	8	7	6	5	4	52	
— 4	20	17	14														56	32	28	24	21	19	17	15	13	11	9	8	7	6	5	4	56	
— 0	21	18	15	13													60	32	28	25	22	19	17	15	13	11	10	9	8	7	6	5	4	60
+ 4	22	19	16	14	12	10											+ 64	33	29	26	23	20	18	16	14	12	10	9	8	7	6	5	4	+ 64
+ 8	23	19	16	14	12	10	8										68	33	29	26	23	20	18	16	14	12	11	10	8	7	6	5	5	68
+ 12	23	20	17	15	13	11	9	7									72	34	30	27	24	21	19	17	15	13	11	10	8	7	6	5	72	
+ 16	24	21	18	16	13	11	9	8	7	6							76	35	31	28	25	22	19	17	15	13	11	10	9	8	7	6	6	76
+ 20	25	22	19	16	14	12	10	8	7	6	5						80	35	31	28	25	23	20	18	16	14	12	11	9	8	7	6	6	80
+ 24	25	22	19	16	14	12	10</																											