

**Dr. Jeff's Blog on the Universe <http://blogontheuniverse.org>**

**Solution to Weekly Challenge 3: What Can You Do with A Humongous Piece of Xerox Paper?**

**Assumption:** The table below assumes that a ream of 500 sheets of xerox paper is 5.08 cm (2.0 inches) thick, which is what I found when I measured a standard ream (Dr. Jeff).

**If you start with a humongous sheet of xerox paper, then:**

After fold number:	The thickness is:	Units	
1	2	sheets	
2	4	sheets	
3	8	sheets	
4	16	sheets	
5	32	sheets	
6	64	sheets	
7	128	sheets	
8	256	sheets	
9	512	sheets	= about 1 ream (500 sheets) = 5.2 cm
10	10.40	cm	
11	20.8	cm	
12	41.6	cm	
13	83.2	cm	
14	166.5	cm	Now as thick as HEIGHT OF HUMAN BEING
15	332.9	cm	
16	665.8	cm	
17	1,331.7	cm	
18	2,663.4	cm	
19	5,326.8	cm	
20	10,653.5	cm	Now thicker than HEIGHT OF STATUE OF LIBERTY (93 m = 9,300 cm)
21	21,307.1	cm	
22	42,614.1	cm	Now about as thick as HEIGHT OF EMPIRE STATE BLDG (448.7 m = 44,870 cm)
23	85,228.3	cm	
24	170,456.5	cm	= 1.68 kilometers (km)
25	3.4	km	
26	6.8	km	
27	13.6	km	Now thicker than HEIGHT OF MOUNT EVEREST (8,848 m = 8.8 km)
28	27.3	km	
29	54.5	km	
30	109.1	km	
31	218.2	km	
32	436.4	km	
33	872.7	km	
34	1,745	km	
35	3,491	km	
36	6,982	km	
37	13,964	km	Now thicker than the DIAMETER OF EARTH
38	27,928	km	which is 12,756 km
39	55,855	km	
40	111,710	km	
41	223,421	km	
42	446,842	km	Now thicker than the distance FROM EARTH TO THE MOON
43	893,683	km	which is 384,400 km
44	1,787,366	km	
45	3,574,732	km	
46	7,149,464	km	
47	14,298,929	km	
48	28,597,858	km	

After fold number:	The thickness is:	Units		
49	57,195,715	km		
50	114,391,431	km		
51	228,782,861	km	<b>Now thicker than the distance FROM EARTH TO THE SUN</b>	
52	457,565,722	km		<b>which is 149,600,000 km</b>
53	915,131,444	km		
54	1,830,262,889	km		
55	3,660,525,777	km		
56	7,321,051,554	km		
57	14,642,103,109	km		
58	29,284,206,217	km		
59	58,568,412,434	km		
60	117,136,824,868	km		
61	234,273,649,736	km		
62	468,547,299,472	km		
63	937,094,598,944	km		
64	1,874,189,197,889	km		
65	3,748,378,395,778	km		
66	7,496,756,791,556	km		
67	14,993,513,583,111	km = 1.6 Light Years	<b>A Light Year is Distance Light Travels in 1 Yr (9.5 TRILLION km)</b>	
68	3.2	Light Years		
69	6.3	Light Years	<b>Now thicker than distance to NEAREST STAR, PROXIMA CENTAURI</b>	
70	12.7	Light Years		<b>which is 4.2 Light Years away</b>
71	25.4	Light Years		
72	50.7	Light Years		
73	101.4	Light Years		
74	202.9	Light Years		
75	405.7	Light Years		
76	811.5	Light Years		
77	1,623	Light Years		
78	3,246	Light Years		
79	6,492	Light Years		
80	12,984	Light Years		
81	25,968	Light Years		
82	51,935	Light Years		
83	103,870	Light Years	<b>Now thicker than the DIAMETER OF THE MILKY WAY GALAXY</b>	
84	207,741	Light Years		<b>which is 100,000 Light Years across</b>
85	415,482	Light Years		
86	830,964	Light Years		
87	1,661,928	Light Years		
88	3,323,856	Light Years	<b>Now thicker than distance to the ANDROMEDA GALAXY</b>	
89	6,647,712	Light Years		<b>which is 2.5 Million Light Years away</b>
90	13,295,424	Light Years		
91	26,590,847	Light Years		
92	53,181,695	Light Years		
93	106,363,389	Light Years		
94	212,726,779	Light Years		
95	425,453,558	Light Years		
96	850,907,115	Light Years		
97	1,701,814,231	Light Years		
98	3,403,628,462	Light Years		
99	6,807,256,923	Light Years		
100	13,614,513,846	Light Years		
101	27,229,027,692	Light Years		
102	54,458,055,384	Light Years		
103	108,916,110,768	Light Years	<b>Now thicker than distance to CURRENT EDGE OF OBSERVABLE UNIVERSE</b>	
				<b>which is 78 Billion Light Years Away</b>