

Table 3: s=2

Table 3: Primitive Pythagorean Triples (PPT) with s=2													
•	• PPT	r	r <sup>2</sup> /2	s+t		(s+t) <sup>2</sup>	(s <sup>2</sup> + t <sup>2</sup> )	U/c		next c	next p	next t	
				s	t	√W	W	U	c				p
•	3-4-05	2	2	1	2	3	9	5	5	1	13	5	8
•	5-12-13	4	8	1	8	9	81	65	13	5			
•	8-15-17	6	18	2	9	11	121	85	17	5	37	17	25
•	12-35-37	10	50	2	25	27	729	629	37	17	65	37	49
•	20-21-29	12	72	8	9	13	169	145	29	5			
•	16-63-65	14	98	2	49	51	2601	2405	65	37	101	65	81
•	20-99-101	18	162	2	81	83	6889	6565	101	65	145	101	121
•	28-45-53	20	200	8	25	33	1089	689	53	13			
•	24-143-145	22	242	2	121	123	15129	14645	145	101	197	145	169
•	33-56-65	24	288	9	32	41	1681	1105	65	17			
•	28-195-197	26	338	2	169	171	29241	28565	197	145	257	197	225
•	36-77-85	28	392	8	49	57	3249	2465	85	29			
•	32-255-257	30	450	2	225	227	51529	50629	257	197	25	257	289
•	39-80-89	30	450	9	50	59	3481	2581	89	29			
•	36-323-325	34	578	2	289	291	84681	83525	325	257	401	325	361
•	44-117-125	36	648	8	81	89	7921	6625	125	53			
•	40-399-401	38	722	2	361	363	131769	130325	401	325	485	401	441
•	44-483-485	42	882	2	441	443	196249	194485	485	401	577	485	529
•	48-575-577	46	1058	2	529	531	281961	279845	577	485	677	577	625
•	52-675-677	50	1250	2	625	627	393129	390629	677	577	785	677	729
•	56-783-785	54	1458	2	729	731	534361	531445	785	677	901	785	841
•	60-899-901	58	1682	2	841	843	710649	707285	901	785	1025	901	961
•	64-1023-1025	62	1922	2	961	963	927369	923525	1025	901	1157	1025	1089
•	68-1155-1157	66	2178	2	1089	1091	1190281	1185925	1157	1025	1297	1157	1225
•	72-1295-1297	70	2450	2	1225	1227	1505529	1500629	1297	1157	1445	1405	1369
Δ	a=Δ4 b=c=Δ4X <sub>n</sub> 2a+4 = Σa+a <sub>n</sub>	Δ4	2(X <sub>n</sub> ) <sup>2</sup> =Δ4a		(X <sub>n</sub> ) <sup>2</sup> =Δ2a	Δ8X <sub>n</sub> =Δ2a			Δ4X <sub>n</sub> =2a+4	Δ4X <sub>n</sub> =2a <sub>p</sub> -4	Δ4X <sub>n</sub> =2a <sub>n</sub> +4	Δ4X <sub>n</sub> =2a+4	(X <sub>n</sub> ) <sup>2</sup> =Δ2a <sub>n</sub>
	n=5,7,9,...		n=3,5,7,...		n=3,5,7,...	n=(1),2,3,...			n=5,7,9,...	n=3,5,7,...	n=7,9,11,...	n=5,7,9,...	n=5,7,9,...
Δ=difference				a <sub>p</sub> = previous		a = current		a <sub>n</sub> = next					
Summary — —>		<p>Every s=2 PPT can be generated from the initial 3-4-5 PPT. Switching the “s” &amp; “t” pair-sets gives the s=2,8,18,32,... EVEN PPTS and from the s=2, the ODD s=9,25,49,81,... can be generated the same way. ALL PPTS are related back to the 3-4-5 PPT! Disregard the grayed out rows of s=1,8,9 for all except for the r and r<sup>2</sup>/2 columns as they are shown to show how the specific s=2 pattern is formed. For example: PPT 20-21-29 is found here (row 5) with s=8, t=9, as well as on Table 5 &amp; 6, but it is only on the s=8 Table 5 that it is active (Blue). It is also derived directly from the 3-4-5 PPT as the “next t” and “next s” (see text).</p> <p>Notice that the spacing between subsequent PPTS points to the next PPT s=2 row.</p> <p>Another key pattern is that the “t” values for all PPTS follow a (1),4,9,16,25,36,49,64,81,100 (in BOLD) sequence — like that of the PD — skipping all the EVENS, those divisible by 4. An EVEN + ODD or ODD + EVEN pattern for “a,b” and “a<sup>2</sup>,b<sup>2</sup>” and “s,t” values holds true. Patterns described typically begin with the first s=2 PPT row. Some pattern values also run through the other nPPT and/or s≠2 rows.</p> <p>Notice the s=2 pattern for PPTS runs 1 (BLUE)-1 (BLUE)-1 (BLUE),... with no skips when only the s=2 rows are considered.</p> <p>Copyright©2014, Reginald Brooks, Brooks Design.</p>											