Table 6: s=9

Table 6: Primitive Pythagaorean Triples (PPT) with s=9

•	• PPT	r	$r^2/2$	s	t	s+t √W	$(s+t)^2$ W	$(s^2 + t^2)$ U	c	U/c p	*next c	*next p	*next t
•	**8-15-17**	6	18	2	9	11	121	85	17	5			
•	**20-21-29**	12	72	8	9	17	289	145	29	5			
	27-36-45	18	162	9	18	27	729	405	45	9			
•	**33-56-65**	24	288	9	32	41	1681	1105	65	17	149	65	98
•	**39-80-89**	30	450	9	50	59	3481	2581	89	29	185	89	128
	45-108-117	36	648	9	72	81	5184	5265	117	45			
•	**51-140-149**	42	882	9	98	107	11449	9685	149	65	269	149	200
•	**57-176-185**	48	1152	9	128	137	18769	16465	185	89	317	185	242
	63-216-225	54	1458	9	162	171	29241	26325	225	117			
•	**69-260-269**	60	1800	9	200	209	43681	40081	269	149	425	269	338
•	**75-308-317**	66	2178	9	242	251	63001	58645	317	185	485	317	392
Δ	**a=Δ6 or 12 [a (all)=Δ6] b (all)=c (all) =$\Delta 4X_n$**	Δ6 or 12 [a (all)=Δ6]	$\Delta 9X_n$		$2(X_n)^2$ (all)	$\Delta 2X_n$ (all)			$\Delta 4X_n$ (all)	$\Delta 4X_n$ (all)	$\Delta 4X_n$ (all)	$\Delta 4X_n$ (all)	$2(X_n)^2$ (all)
	n=6,7,8,…		**n=18,22,26 …**		**n=4,5,6,…**	**n=9,11,13, …**			**n=6,7,8,…**	**n=3,4,5,…**	**n=9,10,11, …**	**n=6,7,8,…**	**n=7,8,9,…**
Δ=difference in PPTs s=9						**a_p= previous**	**a= current**	**a_n= next**					

Summary——>

Every **s=9** PPT can be generated from the initial **3-4-5** PPT. Switching the "*s*" & "*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=2 & 8** and all non-Primitive Pythagorean Triples (nPPT) except for the **r** and **$r^2/2$** columns as they are shown to show how the specific **s=9** pattern is formed. Refer to **Table 3** (**s=2**) to see how the **s=9** PPTs are a derivative. Notice that the spacing between subsequent PPTs now skips not to the next PPT but to the one thereafter, i.e. every other one. If "c"=65, it's "**p**" value skips past the very next PPT to the one thereafter, e.i. to the "c"=149 row. This is a consistent pattern for all **s=9**. While **s=2** pointed to the next PPT row, **s=9** points to the second next row! As all subsequently larger **s-sets** will show, each has a similar skip pattern that is a consistent multiplier for that given **s-set**!

Another key pattern is that the "**t**" values for all PPTs follow a (2,8,18),**32**,**50**,72,**98**,**128**,162,**200**,**242** sequence (in **BOLD**) that when divided by 2 gives the (1,4,9),**16**,**25**,36,**49**,**64**,81,**100**,**121** (in **BOLD**) sequence — like that of the PD — skipping all those divisible by 9. An EVEN + ODD or ODD + EVEN pattern for "**a,b**" and "**a^2,b^2**" and "**s,t**" values holds true. Patterns described typically begin with the first **s=9** PPT row. Some pattern values also run through the other nPPT and/or **s≠9** rows. Notice the **s=9** pattern for PPTs runs
2 (BLUE)-1-**2** (BLUE)-1-**2** (BLUE),…