

Sheet2

Star Type Legend

MS	Main Sequence	ONeWD	Oxygen Neon White Dwarf
LMMS	Fully convective low mass MS	NS	Neutron Star
COWD	Carbon-Oxygen White Dwarf	BH	Black Hole
HeWD	Helium White Dwarf		

Initial stars
were all
main
sequence.

No.	Star1	Star2	M1	M2	q	e	Period	End Time	Type	End 1 Mass	Type	End 2 Mass
1	MS	MS	1	0.9	0.9	0	1000	13.7 Gyr	COWD	0.676	MS	0.981
2	MS	MS	1.5	1.35	0.9	0	1000	13.7 Gyr	-	-	COWD	0.822
3	MS	MS	2	1.8	0.9	0	1000	13.7 Gyr	COWD	0.897	-	-
4	MS	MS	3	2.7	0.9	0	1000	13.7 Gyr	-	-	COWD	0.941
5	MS	MS	5	4.5	0.9	0	1000	13.7 Gyr	COWD	1.087	-	-
6	MS	MS	8	7.2	0.9	0	1000	13.7 Gyr	NS	1.3	ONeWD	1.327
7	MS	MS	9	8.1	0.9	0	1000	13.7 Gyr	-	-	-	-
8	MS	MS	10	9	0.9	0	1000	13.7 Gyr	NS	1.38	-	-
9	MS	MS	12	10.8	0.9	0	1000	13.7 Gyr	NS	1.38	-	-
10	MS	MS	20	18	0.9	0	1000	13.7 Gyr	NS	1.62	NS	1.594
11	MS	MS	30	27	0.9	0	1000	13.7 Gyr	BH	8.622	BH	1.807
12	MS	MS	1	0.3	0.3	0	1000	13.7 Gyr	COWD	0.545	LMMS	0.308
13	MS	MS	1.5	0.45	0.3	0	1000	13.7 Gyr	COWD	0.564	LMMS	0.451
14	MS	MS	2	0.6	0.3	0	1000	13.7 Gyr	COWD	0.601	LMMS	0.602
15	MS	MS	3	0.9	0.3	0	1000	13.7 Gyr	COWD	0.701	MS	0.903
16	MS	MS	5	1.5	0.3	0	1000	13.7 Gyr	COWD	1.005	-	-
17	MS	MS	8	2.4	0.3	0	1000	13.7 Gyr	NS	1.38	-	-
18	MS	MS	9	2.7	0.3	0	1000	13.7 Gyr	NS	1.3	-	-
19	MS	MS	10	3	0.3	0	1000	13.7 Gyr	NS	1.3	-	-
20	MS	MS	12	3.6	0.3	0	1000	13.7 Gyr	NS	1.317	-	-
21	MS	MS	20	6	0.3	0	1000	13.7 Gyr	NS	1.636	-	-
22	MS	MS	30	9	0.3	0	1000	13.7 Gyr	NS	1.583	NS	1.317
23	MS	MS	50	15	0.3	0	1000	13.7 Gyr	NS	1.78	NS	1.498
24	MS	MS	60	18	0.3	0	1000	13.7 Gyr	BH	1.849	NS	1.574
25	MS	MS	1	0.9	0.9	0.7	1000	13.7 Gyr	HeWD	0.417	MS	0.911

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26 MS	MS	1.5	1.35	0.9	0.7	1000 13.7 Gyr	-	-	-	-
27 MS	MS	2	1.8	0.9	0.7	1000 13.7 Gyr	-	-	COWD	0.783
28 MS	MS	3	2.7	0.9	0.7	1000 13.7 Gyr	COWD	0.764	-	-
29 MS	MS	5	4.5	0.9	0.7	1000 13.7 Gyr	COWD	1.004	-	-
30 MS	MS	8	7.2	0.9	0.7	1000 13.7 Gyr	NS	1.294	-	-
31 MS	MS	9	8.1	0.9	0.7	1000 13.7 Gyr	NS	1.316	-	-
32 MS	MS	10	9	0.9	0.7	1000 13.7 Gyr	NS	1.341	-	-
33 MS	MS	12	10.8	0.9	0.7	1000 13.7 Gyr	NS	1.393	-	-
34 MS	MS	20	18	0.9	0.7	1000 13.7 Gyr	NS	1.636	-	-
35 MS	MS	30	27	0.9	0.7	1000 13.7 Gyr	BH	1.846	-	-
36 MS	MS	1	0.3	0.3	0.7	1000 13.7 Gyr	HeWD	0.422	LMMS	0.302
37 MS	MS	1.5	0.45	0.3	0.7	1000 13.7 Gyr	COWD	0.709	-	-
38 MS	MS	2	0.6	0.3	0.7	1000 13.7 Gyr	COWD	0.62	-	-
39 MS	MS	3	0.9	0.3	0.7	1000 13.7 Gyr	COWD	0.723	-	-
40 MS	MS	5	1.5	0.3	0.7	1000 13.7 Gyr	COWD	1.003	-	-
41 MS	MS	8	2.4	0.3	0.7	1000 13.7 Gyr	NS	1.294	-	-
42 MS	MS	9	2.7	0.3	0.7	1000 13.7 Gyr	NS	1.316	-	-
43 MS	MS	10	3	0.3	0.7	1000 13.7 Gyr	NS	1.341	-	-
44 MS	MS	12	3.6	0.3	0.7	1000 13.7 Gyr	NS	1.393	-	-
45 MS	MS	20	6	0.3	0.7	1000 13.7 Gyr	NS	1.636	-	-
46 MS	MS	30	9	0.3	0.7	1000 13.7 Gyr	BH	1.872	-	-
47 MS	MS	50	15	0.3	0.7	1000 13.7 Gyr	NS	1.78	NS	1.51
48 MS	MS	60	18	0.3	0.7	1000 13.7 Gyr	BH	1.849	NS	1.581

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Initial stars were all main sequence.								Lifetime (in MYR) of various phases				If NS-NS, BH-BH pair, formation time:	
No.	Star1	Star2	Msun		q	e	Massive Isotope	Symbiotic	TP AGB	Blue Straggler			
			M1	M2						Star 1	Star 2		
1	MS	MS	1	0.9	0.9	0	Ge74		0	2.7	0	0.1	-
2	MS	MS	1.5	1.35	0.9	0	W186		0	1.3	0	0	-
3	MS	MS	2	1.8	0.9	0	Ge74		0	2	0	0	-
4	MS	MS	3	2.7	0.9	0	W188	0.5	0.28		0	0	-
5	MS	MS	5	4.5	0.9	0	Hf182	0	5		0	0	-
6	MS	MS	8	7.2	0.9	0	Hf180	6	0.2		0	0.0004	-
7	MS	MS	9	8.1	0.9	0	Ge74	0	0		0	0	-
8	MS	MS	10	9	0.9	0	Ge74	0	0		0	0	-
9	MS	MS	12	10.8	0.9	0	Ge74	0	0		0	0	-
10	MS	MS	20	18	0.9	0	Ge74	0.1	0		0.01	1	-
11	MS	MS	30	27	0.9	0	Ge74	0	0		0.3	0.7	-
12	MS	MS	1	0.3	0.3	0	Ge74		0	2	0	0	-
13	MS	MS	1.5	0.45	0.3	0	Ge74		0	1.1	0	0	-
14	MS	MS	2	0.6	0.3	0	Ge74		0	1.2	0	0	-
15	MS	MS	3	0.9	0.3	0	W186		0	0.2	0	0	-
16	MS	MS	5	1.5	0.3	0	Hf182		0	0.2	0	0	-
17	MS	MS	8	2.4	0.3	0	Ge74		0	0	0	0	-
18	MS	MS	9	2.7	0.3	0	Ge74		0	0	0	0	-
19	MS	MS	10	3	0.3	0	Ge74		0	0	0	0	-
20	MS	MS	12	3.6	0.3	0	Ge74		0	0	0	0	-
21	MS	MS	20	6	0.3	0	Ge74		0	0	0	0	-
22	MS	MS	30	9	0.3	0	Ge74	0.1	0		0	0	33.6
23	MS	MS	50	15	0.3	0	Ge74	0	0		0	0	13.9
24	MS	MS	60	18	0.3	0	Ge74	0	0		0	0	11.2
25	MS	MS	1	0.9	0.9	0.7	Ge74		0	0	0	0	-

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26 MS	MS	1.5	1.35	0.9	0.7	Ge74	0	0	0	0	-
27 MS	MS	2	1.8	0.9	0.7	W188	0	0.4	0	0	-
28 MS	MS	3	2.7	0.9	0.7	W188	0	1.3	0	0	-
29 MS	MS	5	4.5	0.9	0.7	Hf182	0	0.2	0	0	-
30 MS	MS	8	7.2	0.9	0.7	Ge74	0	0	0	0	-
31 MS	MS	9	8.1	0.9	0.7	Ge74	0	0	0	0	-
32 MS	MS	10	9	0.9	0.7	Ge74	0	0	0	0	-
33 MS	MS	12	10.8	0.9	0.7	Ge74	0	0	0	0	-
34 MS	MS	20	18	0.9	0.7	Ge74	0	0	0	0	-
35 MS	MS	30	27	0.9	0.7	Ge74	0	0	0	0	-
36 MS	MS	1	0.3	0.3	0.7	Ge74	0	0	0	0	-
37 MS	MS	1.5	0.45	0.3	0.7	Ge74	0	0.2	0	0	-
38 MS	MS	2	0.6	0.3	0.7	Ge74	0	1.4	0	0	-
39 MS	MS	3	0.9	0.3	0.7	W188	0	0.4	0	0	-
40 MS	MS	5	1.5	0.3	0.7	Ta184	0	0.2	0	0	-
41 MS	MS	8	2.4	0.3	0.7	Ge74	0	0	0	0	-
42 MS	MS	9	2.7	0.3	0.7	Ge74	0	0	0	0	-
43 MS	MS	10	3	0.3	0.7	Ge74	0	0	0	0	-
44 MS	MS	12	3.6	0.3	0.7	Ge74	0	0	0	0	-
45 MS	MS	20	6	0.3	0.7	Ge74	0	0	0	0	-
46 MS	MS	30	9	0.3	0.7	Ge74	0	0	0	0	-
47 MS	MS	50	15	0.3	0.7	Ge74	0	0	0.2	0	13.5
48 MS	MS	60	18	0.3	0.7	Ge74	0	0	0	0	11.1