

A. Convert a 2-hr UH into a 4-hr UH (Case 1: Integral Value)

Time (hr)	(Given) 2-hr UH (cfs)	0.5xUH DRH-0 (cfs)	0.5xUH DRH-1 (cfs)	(Solution) 4-hr UH (cfs)
0	0	0.0		0.0
2	45	22.5	0.0	22.5
4	60	30.0	22.5	52.5
6	36	18.0	30.0	48.0
8	18	9.0	18.0	27.0
10	9	4.5	9.0	13.5
12	0	0.0	4.5	4.5
14			0.0	0.0

B. Compute S-Hydrograph from the 2-hr UH

Time (hr)	(Given) 2-hr UH (cfs)	2xUH 2-hr Hyd (cfs)	Lag-1 2-hr Hyd (cfs)	Lag-1 2-hr Hyd (cfs)	Lag-1 2-hr Hyd (cfs)	Lag-1 2-hr Hyd (cfs)	Lag-1 2-hr Hyd (cfs)	Lag-1 2-hr Hyd (cfs)	(Solution) S-Hyd (cfs)
0	0	0							0
2	45	90	0						90
4	60	120	90	0					210
6	36	72	120	90	0				282
8	18	36	72	120	90	0			318
10	9	18	36	72	120	90	0		336
12	0	0	18	36	72	120	90	0	336
14			0	18	36	72	120	90	336
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C. Compute 6-hr UH from an S-Hydrograph (Case 2: S-Hydrograph Method)

Time (hr)	(Given) S-Hyd (cfs)	Lag by 6-hr S-Hyd (cfs)	6-hr Hyd (cfs)	(Solution) Divide by 6 6-hr UH (cfs)
0	0		0	0
2	90		90	15
4	210		210	35
6	282	0	282	47
8	318	90	228	38
10	336	210	126	21
12	336	282	54	9
14	336	318	18	3
16	336	336	0	0
18	336	336		

