

HP-35s Calculator Program –

RATIONAL METHOD

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Line	Instruction	Process	User Instruction
R001	LBL R	Establishing the library (R goes for Rational Method)	
R002	RATIONAL METHOD	Title	Key in using EQN, RCL R, RCL A, etc
R003	PSE	Short Pause	
R004	FOR RUNOFF	Title	
R005	PSE	Short Pause	
R006	CLΣ	Clear Stats	→ Clear 4
R007	CLVARS	Clear Variables	→ Clear 2
R008	0		
R009	STO Y		
R010	NO OF AREAS		
R011	PSE		
R012	INPUT Y	Declare number of Areas to apply	
R013	n		
R014	1		
R015	+		
R016	STO N		
R017	VIEW N	Viewing which area is processed	
R018	PSE		
R019	RUNOFF COEFF		
R020	PSE		
R021	INPUT C		
R022	AREA IN ACRES		
R023	PSE		
R024	INPUT A		
R025	x		
R026	RCL A		
R027	Σ+		
R028	RCL N		
R029	RCL Y		
R030	x>y?	Process loop	
R031	GTO R013		
R032	CLSTK		
R033	Σx		
R034	STO A		
R035	AREA TOTAL		
R036	PSE		
R037	VIEW A	Viewing total area in acres	
R038	C COMPOSITE		
R039	PSE		
R040	Σy		
R041	RCL A		
R042	+		
R043	STO C		
R044	VIEW C	Viewing composite C	
R045	SOLVING FOR		
R046	PSE	Short Pause	
R047	INT RAINFALL		
R048	PSE	Short Pause	
R049	LONGEST FLOW		
R050	PSE	Short Pause	
R051	PATH (FT)		
R052	PSE	Short Pause	
R053	INPUT L		
R054	√x		
R055	1.1		
R056	RCL C		
R057	-		
R058	x		
R059	1.8		
R060	x		
R061	SLOPE %		

R062	PSE	
R063	INPUT S	Input the slope in decimal
R064	x#0?	
R065	GTO R080	
R066	0.000000001	
R067	+	
R068	0.3333333333	
R069	y^x	
R070	÷	
R071	STO T	
R072	T CONCENT (MIN)	
R073	PSE	
R074	INPUT T	Verify the time of concentration
R075	K FACTOR	
R076	PSE	
R077	CHECK FOR K	Giving user time to find K factor (Press R/S to proceed)
R078	INPUT K	Input the K factor
R079	B COEFF	
R080	PSE	
R081	INPUT B	Input the b coefficient
R082	RCL T	
R083	+	
R084	1/x	
R085	x	
R086	STO I	
R087	INPUT I	
R088	RUNOFF AC×IN=H	Runoff in Acres by inches over hours
R089	PSE	
R090	RCL A	
R091	x	
R092	RCL C	
R093	x	
R094	STO Q	
R095	VIEW Q	
R096	OR IN CFS	
R097	PSE	
R098	1.0083333333	
R099	x	
R100	STO Q	
R101	VIEW Q	
R102	PIPE FOR FLOW	
R103	PSE	
R104	MANNING N	
R105	PSE	
R106	INPUT N	
R107	x	
R108	2.16	
R109	x	
R110	SLOPE % INTEGR	
R111	PSE	
R112	INOUT S	
R113	100	
R114	÷	
R115	√x	
R116	÷	
R117	0.375	
R118	y^x	
R119	12	
R120	x	
R121	STO D	
R122	PIPE DIAM (IN)	
R123	PSE	
R124	VIEW D	
R125	STO S	
R126	STOP	
R127	RTN	