◎ Floating Point (COS)

♦ Diagram

$\cos\theta = x / r$
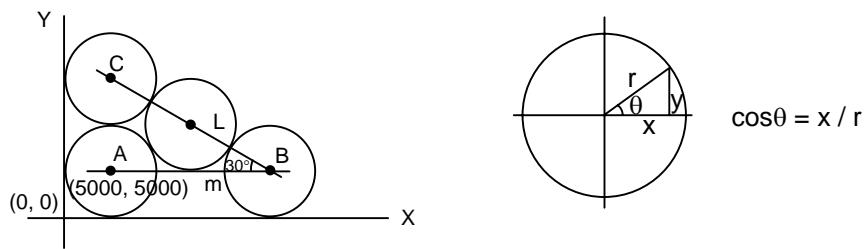
♦ Action Description

The circle with diameter is 10000 unit length, ask the length of Line m, i.e. the absolute coordinate of B point.

Formula : Line segment m = L × cos∠B

♦ Program

M8002					
─┤├─	[DMOVP	K30	D0	]	∠B = 30° → (D0) binary integer value
M8000					
─┤├─	[DFLT	D0	D4	]	Convert ∠B to binary floating value → (D5, D4)
	[DEDIV	K31415926	K1800000000	D20]	(π /180) → (D21, D20)
	[DEMUL	D4	D20	D30]	(D5, D4)angle × (π /180) → (D31, D30) RAD binary floating value
	[DCOS	D30	D32	]	(D31, D30)RAD → (D33, D21) COS binary floating value
	[DMUL	K10000	K2	D40]	The length of Line L is double of diameter
	[DFLT	D40	D42	]	Convert Line L integer value to binary floating point format
	[DEMUL	D42	D32	D100]	D100 is the binary floating point value of Line m
	[DINT	D100	D200	]	D200 is the binary integer value of Line m