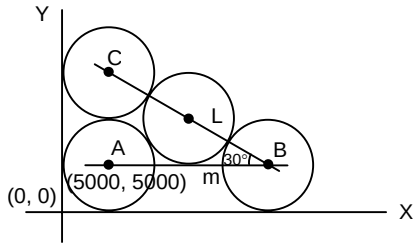
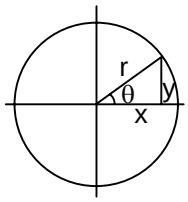
◎ Floating Point (TAN)

♦Diagram





$\tan\theta = y / x$

♦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 = $\overline{AC} \times \tan\angle C$ ($\overline{AC}$ length = diameter)

♦Program

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M8002
 ─┤├──────────[DMOVP  K60          D0                  ]  ∠C = 60° → (D0)   binary integer value
M8000
 ─┤├──┬───────[DFLT   D0           D4                  ]  Convert ∠C 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
      ├───────[DTAN   D30          D32                 ]  (D31, D30)RAD → (D33, D21) TAN   binary floating value
      ├───────[DMUL   K10000       K1            D40   ]  the length of segment AC = Diameter
      ├───────[DFLT   D40          D42                 ]  Convert integer value of segment AC 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
 ↓
```