◎ Floating Point (SIN)

♦ Diagram

$$\sin\theta = y / r$$
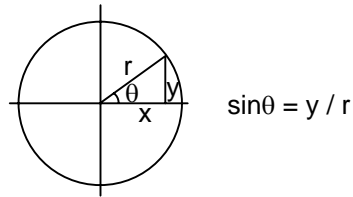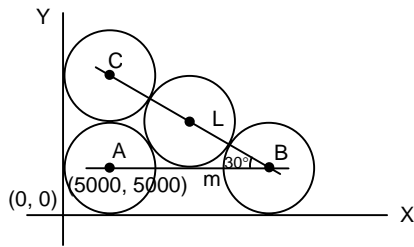
♦ Action Description

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 × sin∠C

♦ Program

```
 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
            │
            ├─────────────[DSIN   D30        D32                   ]   (D31, D30)RAD → (D33, D21) SIN   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
```