



C- Pool

problem 173

The cost of operation

**The cost of operation of a unit consists of two components C1 and C2 which can be expressed as functions of a parameter p as follows:**

$$\mathbf{C1 = 30 - 8p \quad C2 = 10 + p^2}$$

$$\mathbf{Total\ cost = C1 + C2}$$

**The parameter p ranges from 0 to 10.**

**Determine the value of p with an accuracy of + 0.1 where the cost of operation would be minimum.**

## Expected Output

```
MINIMUM COST = 24.00 AT p = 4.0
```