

$C = 1000$   
 $r = 0.05$   
 $n = 12$   
 $PV = \frac{C}{r} (1 - (1 + r)^{-n})$   
 $PV = \frac{1000}{0.05} (1 - (1 + 0.05)^{-12})$   
 $PV = 20000 (1 - 0.5568)$   
 $PV = 20000 (0.4432)$   
 $PV = 8864$   
 $FV = PV (1 + r)^n$   
 $FV = 8864 (1 + 0.05)^{12}$   
 $FV = 8864 (1.7959)$   
 $FV = 15900$   
 $P = 0.119$   
 $P = \frac{1000}{8400}$

```

#include <iostream>
using namespace std;
int main()
{
    int n;
    double p;
    double r;
    double pv;
    double fv;
    cout << "Enter n: ";
    cin >> n;
    cout << "Enter r: ";
    cin >> r;
    cout << "Enter pv: ";
    cin >> pv;
    fv = pv * (1 + r) * n;
    cout << "fv: " << fv << endl;
    return 0;
}

```

