

Create Object On Your Own

Your task is to create a calculator to determine how long it will take to pay off a compound interest loan with systematic payments. Your webpage will take four inputs as follows:

Loan Amount:	<input type="text" value="0"/>
Period:	<input type="text" value="Annual"/> ▾
Annual Interest:	<input type="text" value="0"/> %
Payback per period:	<input type="text" value="0"/>

There are four allowable periods:

- Annual: Payment and Interest paid once a year
- Biannual: Payment and Interest paid every half year
- Quarterly: Payment and Interest paid four times a year
- Monthly: Payment and Interest paid once a month

The interest is calculated as annual interest/period. So an annual interest of 5% is paid as 2.5% twice a year.

Once all the data is input, the system should automatically calculate the loan and show the calculation. If any data is blank, an error message should be produced.

The final answer given should always round the number of years to pay to the next year. Thus a loan amount of 10000 at 5% annual interest paid as \$1000 per year should produce:

Loan Amount:

Period: ▼


Annual Interest: %

Payback per period: ▼

Period	Amount Remaining	Add Interest	After Payment
1	10000.00	10500.00	9500.00
2	9500.00	9975.00	8975.00
3	8975.00	9423.75	8423.75
4	8423.75	8844.94	7844.94
5	7844.94	8237.18	7237.18
6	7237.18	7599.04	6599.04
7	6599.04	6929.00	5929.00
8	5929.00	6225.45	5225.45
9	5225.45	5486.72	4486.72
10	4486.72	4711.05	3711.05
11	3711.05	3896.61	2896.61
12	2896.61	3041.44	2041.44
13	2041.44	2143.51	1143.51
14	1143.51	1200.68	200.68
15	200.68	210.72	0.00

You will pay off the loan in 15 years.

Paid quarterly, it should produce:



Loan Amount:
Period: 
Annual Interest: %
Payback per period:

Period	Amount Remaining	Add Interest	After Payment
1	10000.00	10125.00	9125.00
2	9125.00	9239.06	8239.06
3	8239.06	8342.05	7342.05
4	7342.05	7433.83	6433.83
5	6433.83	6514.25	5514.25
6	5514.25	5583.18	4583.18
7	4583.18	4640.47	3640.47
8	3640.47	3685.97	2685.97
9	2685.97	2719.55	1719.55
10	1719.55	1741.04	741.04
11	741.04	750.30	0.00

You will pay off the loan in 3 years.

If the loan amount is 0 or blank, no calculation should be displayed.

The system should also test if the loan will never be paid back. If so, the system should say so.

Loan Amount:
Period: 
Annual Interest: %
Payback per period: 

Interest payment is greater than or equal to actual payment. Loan will never be repaid.

Marking:

Four input fields laid out correctly: 2 marks

System does not display table if loan amount is 0 or blank: 2 marks

System tests if loan is never paid back: 2 marks

System generates calculation table header: 2 marks

Calculation table has correct values: 2 marks

Amounts are displayed to two decimal places, but system keeps a precise count of amounts: 2 marks

System declares how many years it will take to pay back correctly: 2 marks

System begins calculation once sufficient information is available: 2 marks

No unusual behaviors: 4 marks