[07-08-27-T-12] Monthly payment = **$2,923.71** <=== you pay the same amount every month!

$400,000
20 years
6.25 % per year
Compounded monthly
Monthly payments

Payment #	Amount applied to principal ($)	Amount applied to interest ($)
0	$836.03	$2,087.69
5	$858.02	$2,065.69
10	$880.60	$2,043.11
15	$903.78	$2,019.94
20	$927.56	$1,996.16
25	$951.97	$1,971.75
30	$977.02	$1,946.70
35	$1,002.73	$1,920.99
40	$1,029.11	$1,894.60
45	$1,056.19	$1,867.52
50	$1,083.99	$1,839.73
55	$1,112.51	$1,811.20
60	$1,141.78	$1,781.93
65	$1,171.83	$1,751.88
70	$1,202.67	$1,721.05
75	$1,234.31	$1,689.40
80	$1,266.79	$1,656.92
85	$1,300.13	$1,623.58
90	$1,334.34	$1,589.37
95	$1,369.45	$1,554.26
100	$1,405.49	$1,518.22
105	$1,442.47	$1,481.24
110	$1,480.43	$1,443.28
115	$1,519.39	$1,404.33
120	$1,559.37	$1,364.34
125	$1,600.40	$1,323.31
130	$1,642.52	$1,281.20
135	$1,685.74	$1,237.97
140	$1,730.10	$1,193.62
145	$1,775.62	$1,148.09
150	$1,822.35	$1,101.36
155	$1,870.30	$1,053.41
160	$1,919.52	$1,004.19
165	$1,970.03	$953.68
170	$2,021.87	$901.84
175	$2,075.07	$848.64
180	$2,129.68	$794.04
185	$2,185.72	$737.99
190	$2,243.23	$680.48
195	$2,302.26	$621.45
200	$2,362.85	$560.87
205	$2,425.02	$498.69
210	$2,488.84	$434.88
215	$2,554.33	$369.39
220	$2,621.54	$302.17
225	$2,690.53	$233.19
230	$2,761.33	$162.39
235	$2,833.99	$89.72
240	$2,908.56	$15.15

Total paid in interest	$301,691.07
Total principal paid	$400,000.00
Total Paid	$701,691.07

p. 75 prob # 7 asks you to derive the formula that a lender would use to produce this repayment chart.

Note that only every 5th payment is shown (instead of my printing 240 lines).

Your answer to prob # 7 should agree with this table when you use the values given.

Based on your formula, what should you do to lower the total paid in interest for a loan?