Student, House, Car, Credit Card and Payday Loans

- words with mort are often deadly and among them are:
  mortgage="death pledge"
  amortize a debt=to "kill the debt"
- loan rates are higher than savings rates

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Loan Payments and Amortization

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- total paid= payment $\times$# times compounded - overpayment
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- interest each period on a loan is computed just as in savings:
  account balance $\times$ periodic rate
  but now we pay it back rather than earn it

Congratulations—Now Feed Me Your Loan Payments!

https://www.brookings.edu/blog/up-front/2020/04/16/whats-the-government-done-to-relieve-student-loan-borrowers-

Dear Sarah J Greenwald

At this time you have a choice of repayment terms for your student loan $4795.00 at 8% compounded monthly:

Graduated Repayment Plan		Level Payment Plan	
# PMTS	PMT AMT	# PMTS	PMT AMT
24	34.05	119	58.18
24	44.79	1	57.55
24	58.92		
24	77.50		
23	101.94		
1	96.92		
total	$ 7607.78	total	$ 6980.97

Student Loan

student loan \$4795.00 at 8% compounded monthly 10 years:

$$\text{loan payment} = \frac{\text{loan } r}{1-(1+r)^{-n}} = \frac{4795\frac{.08}{12}}{(1-(1+\frac{.08}{12})^{-120})} = 58.1766...$$

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amortization table for level payment plan

mo.	payment	interest paid	principal paid	loan balance
1	58.18	$4795\frac{.08}{12} = 31.97$	58.18 - 31.97	4795-26.21=4768.79
		balance$\times$period. rate	payment$-$int	balance$-$principal
2	58.18			

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What if we paid an extra \$25 each month?

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mo.	payment	interest paid	principal paid	loan balance
73	83.18	0.55	82.63	(0.56)

Some Loans Require Payments While in School

Your last payment of $50.00 was received on 07/16 If you would like to repay your loan in full, send the total Payoff Amount shown below to the address listed on Item 6 on the back of this form. **Payoff payments must be sent to this address.** This payoff amount is estimated 10 days from the statement date above.

If you have any questions, please contact our office at (877)872-4768 or at our web site www.usagroup.com.

BILLING INFORMATION

DISBURSEMENT DATE	LOAN PROGRAM	ORIGINAL LOAN AMOUNT	INTEREST RATE	PAYOFF AMOUNT	CURRENT AMOUNT DUE	AMOUNT PAST DUE	LATE CHARGES	OTHER FEES	AMOUNT DUE
08/06	STF3	$2,450.00	6.920%	$2,569.04	$50.00	$.00	$.00	$.00	$50.00
				$2,569.04	$50.00	$.00	$.00	$.00	$50.00

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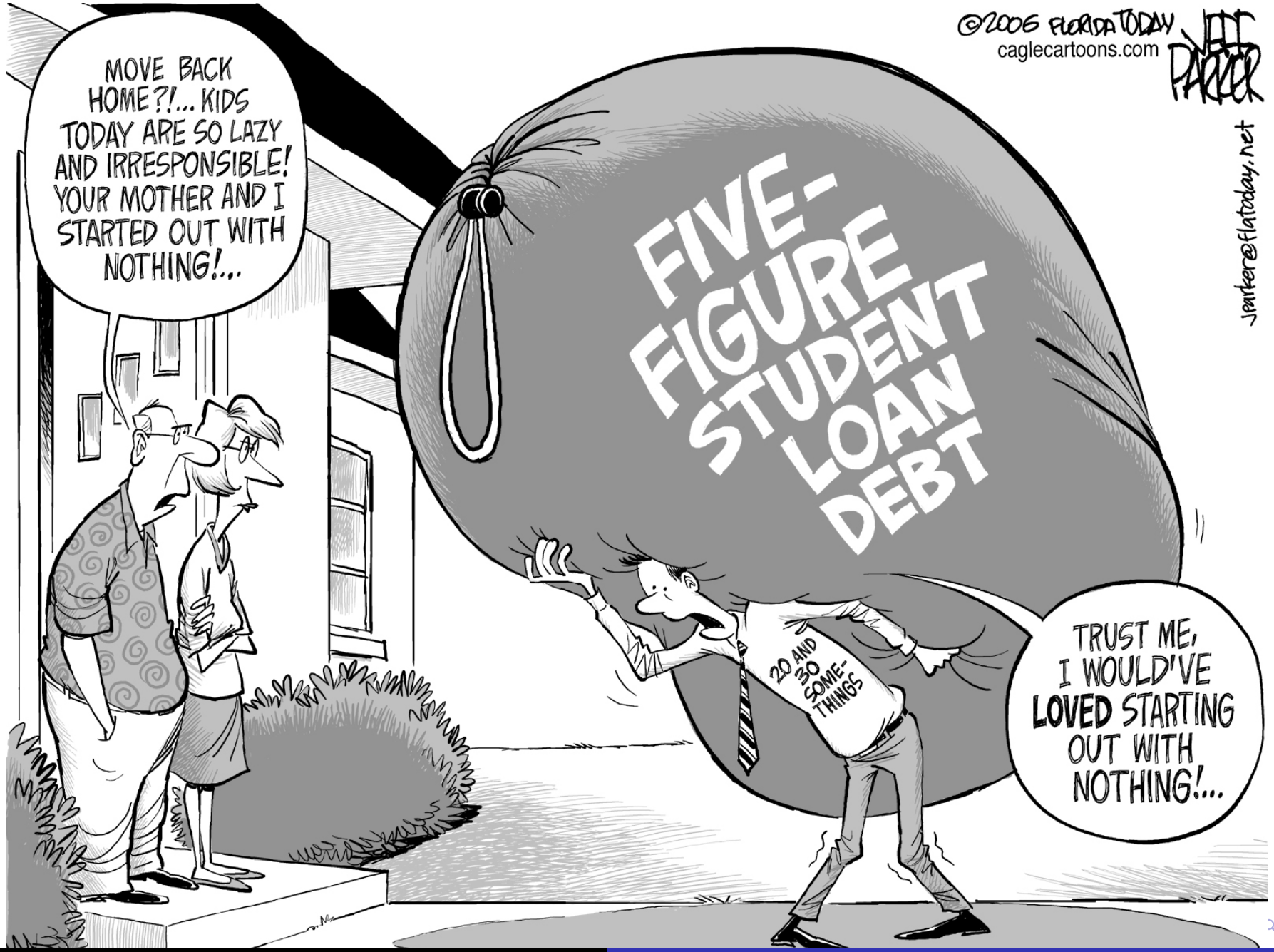
$$50 = \frac{2450\frac{.0692}{12}}{1-(1+\frac{.0692}{12})^{-n}}$$


©2006 FLORIDA TODAY
caglecartoons.com
JEFF PARKER
jparker@flatoday.net
MOVE BACK HOME?!... KIDS TODAY ARE SO LAZY AND IRRESPONSIBLE! YOUR MOTHER AND I STARTED OUT WITH NOTHING!...
FIVE-FIGURE STUDENT LOAN DEBT
20 AND 30 SOME-THINGS
TRUST ME, I WOULD'VE LOVED STARTING OUT WITH NOTHING!...

	8/28	43257454	PAYMENT THANK YOU				-150.00
8/08	8/08	BTXWGX2X	PAPA JOHN S PIZZA	BOONE	NC		9.53
8/15	8/15	CY62CFD0	MICHAELS STORES, INC. #50	RALEIGH	NC		43.45
8/18	8/18	W6PSB300	HARRIS TEETER 165 SAA	BOONE	NC		25.86
8/18	8/18	QRVGLHG0	BP OIL 47653449	BURLINGTON	NC		10.00
8/19	8/19	4MDWYYG9	WAL MART	BOONE	NC		9.01
8/20	8/20	KN48HZG9	WAL MART	BOONE	NC		13.29
8/21	8/21	HY3LXZG9	WAL MART	BOONE	NC		37.43
8/21	8/21	NR9XK600	HARRIS TEETER 165 SAA	BOONE	NC		11.85
8/21	8/21	QVKGVFD*	EXXON USA 7540945909	BOONE	NC		10.00
8/24	8/24	GKD8V600	HARRIS TEETER 165 SAA	BOONE	NC		18.06
8/24	8/24	VTJTGX00	UNIVERSITY BOOK STORE	BOONE	NC		24.33
8/25	8/25	BJ5XGX00	UNIVERSITY BOOK STORE	BOONE	NC		39.75
8/26	8/26	*L*ZGX00	UNIVERSITY BOOK STORE	BOONE	NC		15.90
8/26	8/26	0K*ZGX00	UNIVERSITY BOOK STORE	BOONE	NC		20.74
8/29	8/29	3D1KMYS2	CITGO6162 BOONE CITGO	BOONE	NC		12.10

Enroll in optional CreditShield today! Simply indicate your date of birth and initial the box in the lower left-hand corner of your billing statement coupon. Remember to return the coupon with your payment.

CHANGING YOUR ADDRESS? LET US KNOW.
Maintain your good credit rating. Keep us informed of your new address. When you move, please correct your address on the payment coupon or call Citibank Customer Service.

Account Summary

	Previous Balance	(+) Purchases & Advances	(-) Payments	(-) Credits	(+) FINANCE CHARGE	(+) Late Charges	(=) New Balance
Purchases	347.12	301.30	150.00		6.71		505.13

Amount Due

Purchases Minimum Due	20.00
Advances Minimum Due	
Amount Over Credit Line	
Fees	

	Previous Balance	(+) Purchases & Advances	(-) Payments	(-) Credits	(+) FINANCE CHARGE	(+) Late Charges	(=) New Balance
Purchases	347.12	301.30	150.00		6.71		505.13
Advances							
Total	347.12	301.30	150.00		6.71		505.13

Rate Summary Number of days this Billing Period 29	Purchases	Advances
Balance Subject to Finance Charge	449.67	
Periodic Rate (Purchases-Monthly, Advances-Daily)	1.49170%	.04904%
Nominal Annual Percentage Rate	17.900%	17.900%
ANNUAL PERCENTAGE RATE	17.900%	17.900%

finance charge = interest paid that month

account balance $\times$ periodic rate

$$449.67 \times \frac{.179}{12}$$

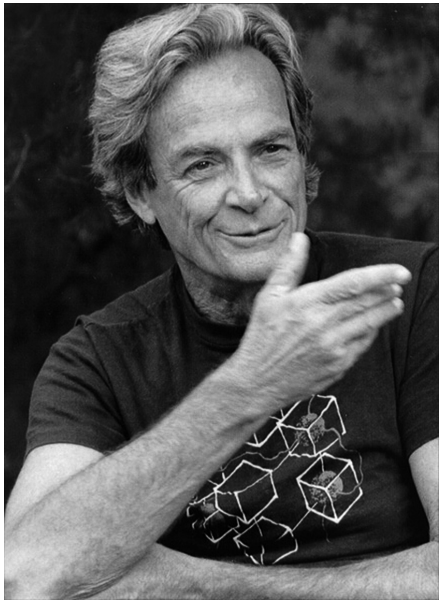
Payday lender in Boone

Within 2 weeks of my next paycheck I can (if I qualify) write a check for $117.50 and receive $100 (so the interest on $100 is $17.50). Then, when I'm paid, I bring $117.50 and buy back my check. If I don't show up, they deposit my check, and if it bounces I owe "returned check charges" They told one of our faculty members that their rate was better than a credit card.

First, what is the 2-week rate as the percentage of interest? Next, what is the annual rate (multiply the 2-week rate by 26, as there are 26 double weeks in a year) and how does it compare to credit card rates?

a) 17.5%, which is about the same as some credit cards
b) 26%, which is about the same as some credit cards
c) 117.5%, which is much higher than credit cards!
d) 455%, which is much higher than credit cards!
e) none of the above

Richard Feynman: astronomical debt



http://stopthedebttrap.org/takeaction/ndoa/kansas-city-story/
doorofperception.com/wp-content/uploads/doorofperception.com-richard_feynman-2.jpg

There are 10^{11} stars in the galaxy. That used to be a huge number. But it's only a hundred billion. It's less than the national deficit! We used to call them astronomical numbers. Now we should call them economical numbers.

$$\text{debt-to-income ratio } 35\% = \frac{\text{monthly debt}}{\text{monthly income}}$$

50-30-20