

# Mr. Kaufman - Deferred Payments Homework

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1) You buy something on 01/01/10 for \$10,000 that has a deferred payment for 1 year : payment is due on 01/01/11 and no interest is due if you pay on time. Interest accrues at 18% compounded daily.

a) How much do you owe if you make payment on 12/31/10?

10,000

b) How much can you reduce the cost of your purchase if you set aside the \$10,000 and invest it in a 1 year CD at 3.20%? Assume interest is compounded daily and a 360 day year.

325

c) How much do you owe if you make the payment on 01/02/11?

11,971.63

2) You buy 20 dishwashers for your appliance store. The cost is \$250 per dishwasher plus 5% sales tax. The wholesaler offers you 2/10 or n/30 terms.

a) What is your cost if you take advantage of the 2% discount?

5145

b) How much was the 2% discount?

105

c) What is your cost if you use the n/30 terms?

5250

d) What is the additional interest you earn if you take the n/30 terms and invest the total for the additional 20 days? Assume that you can earn 2% interest and it is compounded daily.

5.84

Which is the better deal - 2/10 or n/30?

~~3) You buy 20 dishwashers for your appliance store. The cost is \$250 per dishwasher plus 5% sales tax. The wholesaler offers you 2/10 or n/30 terms, but the discount applies only to the inventory, not the sales tax.~~

~~a) What is your cost if you take advantage of the 2% discount?~~

~~5150~~

~~b) How much was the 2% discount?~~

~~100~~

~~c) What is your cost if you use the n/30 terms?~~

~~5250~~

d) ~~What is the additional interest you earn if you take the n/30 terms and invest the total for the additional 20 days? Assume that you can earn 2% interest and it is compounded daily. Which is the better deal - 2/10 or n/30?~~

5.84

4) One of your toughest choices is what financing to choose when offered a selection and how much of a down payment to make:

Gym memberships: \$0 down and \$45 per month OR \$200 down and \$30 per month. After how many months will both deals cost the same amount?

13.33  
Months

5) Sears offers monthly payments at 16.75% interest for 2 years if you buy a kitchen appliance set for \$2,750.

What is your monthly payment?

135.64

6) You purchase a kitchen set from Best Buy for \$4,150. Sales tax is an additional 6%. Your down payment is 20% and the balance will be financed for 36 months at 11.0% interest.

a) What is the amount financed?

3519.20

b) What is the monthly payment?

115.21

c) What are the total finance charges you pay?

628.36

d) What is the total cost of the kitchen set including the finance charges?

5027.36

7) You take out a loan for \$5,500 at 14.2% simple interest. You will pay it back in 9 equal payments.

a) What is the APR?

25.56%

b) Assume that the APR is 18%. Explain why there is such a large disparity between the APR of 18% and the stated interest rate of 12%.