

Procedure:

- 1. Read through scenario and options
- 2. Get into groups of three
- 3. Complete task one
 - Compare options in tables
- 4. Complete task two
 - Choose one option and justify with mathematical evidence and reasoning
- 5. Complete task three
 - Research possible better option
 - Prepare presentation with mathematical evidence and reasoning
- 6. Present to class
 - Each group will present their task three conclusion
 - Class and teacher will determine winner of alternative finance option

Scenario:

Your current refrigerator broke down and you need to buy a new one. You don't have the finances currently so you need to use some line of credit. The new refrigerator you chose will cost you a total of \$1,300.00 after tax and free delivery.

The following are your three options:

- Loan from local bank Loan Amount: \$1,300.00 Interest Rate: 12% Late Payment: \$75.00
- Personal Credit Card APR: 18.9% Late fee: \$25.00 Credit Limit: \$1,500.00 Minimum payment: \$35.00 Reward: 2% cash back on purchases
- 3. Store Credit Card APR: 27.24% Late fee: \$30.00 Credit Limit: \$1,500.00 Minimum payment: \$30.00 Initial discount: 10% off first purchase

Task 1 (75 points): Using the information above, in groups of three, investigate which option would take you the least amount of time to pay off and/or costs you the least in the end. Use the tables below to document data collected. To receive full points make sure *each* member has filled out *all* of the tables below. Work with your group mates to confirm balances and final cost/time.

Option 1:

Month	Balance	Interest	Total	Payment	New Balance
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Months to pay off purchase:

Final purchase price:



Option 2:

Month	Balance	Interest	Total	Payment	New Balance
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Months to pay off purchase:

Final purchase price: DS://wa-appliedmath.org/

Option 3:

Month	Balance	Interest	Total	Payment	New Balance
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Months to pay off purchase:

Final purchase price:

Council

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Task 2 (25 points): Now that you have compared the three options above, use the space below to defend which choice you believe is the best option. For full points you must make sure you back your option choice with mathematical evidence and reason.

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Task 3 (50 points): There are way more than three financing options out there. Your job now is to research and find a better option for financing the \$1,300 needed to purchase your refrigerator with a maximum monthly payment of \$150.00. Make sure to cite your sources and institute you choose to use. Show your mathematical evidence and reasoning that it is in fact a better option.

Research (include sources):

Applied Stress Applied Math Other Finance Option: Reasoning:

*Once you have completed your research and gathered your evidence and reasoning, you will present to the class your findings. Once all groups have presented, we will determine the best financing option for the refrigerator and that group will receive the full 50 points as well as additional leadership points. ③