

ADVANCED ALGEBRA WITH FINANCIAL APPLICATIONS

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DO NOW

WHAT DO YOU KNOW? WHAT SHOULD YOU KNOW?

1. What show's main character morphed from a high school teacher into "Heisenberg"?
 2. What musical act performed at the last Super Bowl?
 3. What is the average daily balance and how is it used for calculations on your credit card statement?
 4. How much would \$1000 grow into, at 100% interest, compounded continuously, in one year?
 5. What comedian was the guest host on the first Saturday Night Live of the 2013 season (and was also famous for portraying Sarah Palin there)?
 6. What was the highest CD savings rate paid in the 1980s?
 7. What was the highest Federal Income Tax rate in 1960?
 8. What was the highest Federal Income Tax rate in 1980?
 9. What is the highest Federal Income Tax rate in 2013?
 10. What is the best way to verify the existence of your belongings in case of a fire?
 11. What is your FICO score and what does FICO stand for?
 12. What is a progressive tax system?
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Advanced Algebra with Financial Applications **DESCRIPTION FOR HIGH SCHOOL COURSE CATALOG**

Advanced Algebra with Financial Applications

Credits: One

Prerequisite: Algebra 1 and suitable for students of ALL ABILITY LEVELS

Advanced Algebra with Financial Applications is a college-preparatory course that will use sophisticated mathematics to give you the tools to become a financially responsible young adult. The course employs selected topics in Algebra 2, Precalculus, Probability, Statistics, and Geometry to solve financial problems that occur in everyday life. Real-world problems in investing, credit, banking, auto insurance, mortgages, employment, income taxes, budgeting and planning for retirement are solved by applying the relevant mathematics. Field projects, computer spreadsheets, and graphing calculators are key components of the course.

BRIEFLY PUT - WHAT IS IT?

- Advanced Algebra with Financial Applications offers 11th and 12th grade students of all ability levels a mathematical modeling course that is algebra-based, applications-oriented, and technology-dependent.
- The course allows students to experience the interrelatedness of mathematical topics, find patterns, make conjectures, and extrapolate from known situations to unknown situations.
- The mathematics topics contained in this course are introduced, developed, and applied in an as-needed format in the financial settings covered. Students are encouraged to use a variety of problem-solving skills and strategies in real-world contexts, and to question outcomes using mathematical analysis and data to support their findings.
- The course offers students multiple opportunities to use, construct, question, model, and interpret financial situations through symbolic algebraic representations, graphical representations, geometric representations, and verbal representations. The mathematical formulas, functions, and pictorial representations used assist students in making sense of the financial world around them and equip them with the ability to make sound financial decisions.
- Advanced Algebra With Financial Applications provides students a motivating, young-adult centered financial context for understanding and applying the mathematics they are guaranteed to use in the future. **It is aligned with the Common Core State Standards for Mathematical Content and employs the Common Core State Standards for Mathematical Practice.**

**MORE INFORMATION
ABOUT THE COURSE CAN BE FOUND AT
www.cengage.com/community/financialalgebra**

DO NOW SOLUTIONS

1. Breaking Bad
2. Beyonce
3. It is the average of each day's ending balance for the billing period. The finance charge is calculated using the average daily balance and the monthly percentage rate.
4. Approximately \$2,718 (where have you seen that sequence of digits before??)
5. Tina Fey
6. 17% (and you even got a toaster with that account)
7. 91%
8. 70%
9. 39.6%
10. Digital and print photos and receipts
11. Although the formula for calculating the FICO score (Fair, Isaac, and Company) is kept a secret, the score and how to improve the score is extremely important to consumers.
12. In a progressive income tax system, the tax rate increases as the income increases. People with greater incomes are subject to higher tax rates on parts of their income.

HOW DID YOU DO? WERE YOU BETTER AT THE POP CULTURE QUESTIONS?