

Math 1324  
Chapter 4  
Mixed Problems from Sections 4.1 – 4.3

The videos corresponding to this worksheet can be found at

<https://online.math.uh.edu/Math1324/>.

UH students can also view the videos within the Math 1324 textbook.

1. Anna wants to have \$5,000 saved when she graduates from college so that she will have a down payment for a new car. Her credit union pays 5% annual interest compounded monthly. How much money should she deposit each month to have the money available when she graduates in 3 years? ***What kind of problem is this?***

2. Bill bought a new car. His financing deal was a 5 year loan at 9.98% annual interest compounded monthly. His monthly payment was \$421.25 and he paid no money down. What was the total purchase price of the car? ***What kind of problem is this?***

3. Sergio wants to have \$5,000 in the bank in 3 years to pay for an Alaskan cruise. How much cash should he deposit today, if the bank pays 4% annual interest compounded quarterly, if he wants to be sure to have the funds available in 3 years? ***What kind of problem is this?***

4. Edwin and Frances are buying a new home. The purchase price is \$155,000. They will make a 10% down payment on the house. Their loan for the house is a 30 year conventional loan at 6.75% per year compounded monthly. Find their monthly payment. *What kind of problem is this?*

5. Grace decides to start a savings program when she gets her first job after graduation. She deposits \$2,500 into her credit union savings account. The credit union pays 3.8% annual interest compounded quarterly. How much money will she have in the account after 4 years? *What kind of problem is this?*

6. Helen bought a new computer. The finance company charged her 15% per year compounded monthly. Her monthly payments were \$88.23 for 2 years and she made no down payment. What was the original price of the computer? *What kind of problem is this?*

7. Gary decided to save some money for his daughter's college education. He decided to save \$300 per quarter. His credit union pays 4.5% per year compounded quarterly. How much money will he have available when his daughter starts college in 10 years? *What kind of problem is this?*

8. Jolene owns a clothing store. She anticipates that she will need to replace her telephone system in 3 years. She projects that a new system will cost \$12,500. Her bank pays 5% annual interest compounded semiannually. How much should she deposit semiannually in order to be able to pay cash for the new phone system? *What kind of problem is this?*

9. Kris wins the lottery and decides to deposit \$25,000 of his winnings in an account for his nephew. The bank pays 6.2% annual interest compounded monthly. How much will he be able to give his nephew in 5 years? *What kind of problem is this?*

10. Megan bought a new car. Her monthly car payments are \$385.17 for 4 years. Her financing rate was 8.9% annual interest compounded monthly. She made a \$1,200 down payment. What was the total purchase price of the car? *What kind of problem is this?*

11. Nicholas and Olivia are buying a house for \$250,000. They made a 15% down payment. Their financing is for 30 years at 6.78% annual interest compounded monthly. Find their monthly payment. *What kind of problem is this?*

12. Phong's employer deposits \$1,000 per quarter into a retirement plan that earns 3.5% annual interest compounded quarterly. How much will be in the plan when he retires in 32 years? *What kind of problem is this?*

13. David owns a small business and knows that he will need to purchase two new delivery vans in 5 years. He anticipates that the vans will cost the business \$28,500 each. His bank pays 4.2% per year compounded monthly. How much should he deposit each month so that he will have the funds available to buy the vans in 5 years? *What kind of problem is this?*