1. At an effective annual interest rate of 20 percent, how many years will it take a given amount to triple in value? (Round to the closest year.)

a. 5
b. 8
c. 6
d. 10
e. 9

2. If you presently have $6,000 invested at a rate of 15 percent, how many years will it take for your investment to triple? (Round up to obtain a whole number of years if necessary.)

a. 2 years
b. 4 years
c. 6 years
d. 8 years
e. 10 years

3. You deposited $1,000 in a savings account that pays 8 percent interest, compounded quarterly, planning to use it to finish your last year in college. Eighteen months later, you decide to go to the Rocky Mountains to become a ski instructor rather than continue in school, so you close out your account. How much money will you receive?

a. $1,171
b. $1,126
c. $1,082
d. $1,163
e. $1,008

4. What is the future value of a 5-year ordinary annuity with annual payments of $200, evaluated at a 15 percent interest rate?

a. $670.44
b. $842.91
c. $1,169.56
d. $1,522.64
e. $1,348.48

5. What is the present value of a 5-year ordinary annuity with annual payments of $200, evaluated at a 15 percent interest rate?

a. $670.43
b. $842.91
c. $1,169.56
d. $1,348.48
e. $1,522.64

6. Assume that you will receive $2,000 a year in Years 1 through 5, $3,000 a year in Years 6 through 8, and $4,000 in Year 9, with all cash flows to be received at the end of the year. If you require a 14 percent rate of return, what is the present value of these cash flows?

a. $9,851
b. $13,250
c. $11,714
d. $15,129
e. $17,353

7. Suppose the present value of a 2-year ordinary annuity is $100. If the discount rate is 10 percent, what must be the annual cash flow?

a. $65.45
b. $82.64
c. $57.62
d. $53.78
e. $79.22

8. If $100 is placed in an account that earns a simple 4 percent, compounded quarterly, what will it be worth in 5 years?

a. $122.02
b. $105.10
c. $135.41
d. $120.90
e. $117.48

9. South Penn Trucking is financing a new truck with a loan of $10,000 to be repaid in 5 annual end-of-year installments of $2,504.56. What annual interest rate is the company paying?

a. 7%
b. 8%
c. 9%
d. 10%
e. 11%

10. Assume that your required rate of return is 12 percent and you are given the following stream of cash flows:

Year	Cash Flow
0	$10,000
1	15,000
2	15,000
3	15,000
4	15,000
5	20,000

If payments are made at the end of each period, what is the present value of the cash flow stream?

a. $66,909

b. $57,323
c. $61,815
d. $52,345
e. $62,029

11. If it were evaluated with an interest rate of 0 percent, a 10-year regular annuity would have a present value of $3,755.50. If the future (compounded) value of this annuity, evaluated at Year 10, is $5,440.22, what effective annual interest rate must the analyst be using to find the future value?

a. 7%
b. 8%
c. 9%
d. 10%
e. 11%

Financial Calculator Section
The following question(s) may require the use of a financial calculator.

12. Tara is evaluating two *mutually exclusive* capital budgeting projects that have the following characteristics:

	Cash Flows	
Year	Project Q	Project R
0	$(4,000)	$(4,000)
1	0	3,500
2	5,000	1,100
IRR	11.8%	12.0%

If the firm's required rate of return (r) is 10 percent, which project should be purchased?

a. Both projects should be purchased, because the IRRs for both projects exceed the firm's required rate of return.
b. Neither project should be accepted, because the IRRs for both projects exceed the firm's required rate of return.
c. Project Q should be accepted, because its net present value (NPV) is higher than Project R's NPV.
d. Project R should be accepted, because its net present value (NPV) is higher than Project Q's NPV.
e. None of the above is a correct answer.

13. Your lease calls for payments of $500 at the end of each month for the next 12 months. Now your landlord offers you a new 1-year lease which calls for zero rent for 3 months, then rental payments of $700 at the end of each month for the next 9 months. You keep your money in a bank time deposit that pays a simple annual rate of 5 percent. By what amount would your net worth change if you accept the new lease? (*Hint*: Your return per month is 5%/12 = 0.4166667%.)

a. –$509.81
b. –$253.62
c. +$125.30
d. +$253.62
e. +$509.81