

Name \_\_\_\_\_

MATH 210  
FALL 2001  
EXAM III  
FORM A

1. George puts \$2000 in an account that earns 4% simple interest per year. How much is in the account after 2 years?
  - (a) \$2080
  - (b) \$2163.20
  - (c) \$160
  - (d) \$163.20
  - (e) \$2160
  
2. Paul puts \$1500 in an account earning 4.8% per year compounded quarterly. How much is in the account after 3 years?
  - (a) \$1716
  - (b) \$1303.19
  - (c) \$1726.53
  - (d) \$2632.85
  - (e) \$1730.84
  
3. John wants to have \$6000 in an account after 5 years. If the account makes 6% interest compounded monthly, how much should he put in now?
  - (a) \$4448.23
  - (b) \$8093.10
  - (c) \$4200
  - (d) \$4483.55
  - (e) \$4615.38
  
4. What is the effective interest rate on an account that earns 6% compounded quarterly?
  - (a) 6%
  - (b) 6.168%
  - (c) 6.136%
  - (d) 106%
  - (e) 24%

5. Ringo puts \$75 into an account at the end of each month. The account earns 5.4% compounded monthly. How much will be in the account after 8 years?

- (a) \$5836.02
- (b) \$7200
- (c) \$8980.72
- (d) \$10310.40
- (e) \$8888.77

6. Sally wants to take out a loan of \$17,000 to buy a car. If the interest rate is 7.2% compounded monthly, what will be her monthly car payments if the loan is for 5 years?

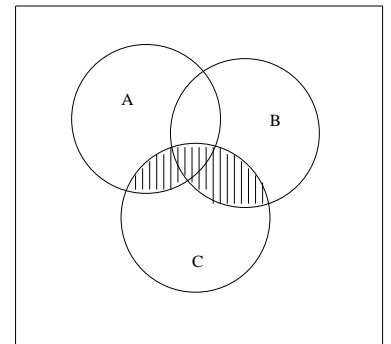
- (a) \$385.33
- (b) \$405.67
- (c) \$304.42
- (d) \$338.23
- (e) \$283.33

7. Let  $A = \{1, 3, 5, 8, 9\}$ ,  $B = \{1, 2, 3, 4, 5\}$ , and  $C = \{2, 3, 4, 8, 10\}$ . Which of the following is true?

- (a)  $5 \in A \cap B \cap C^c$
- (b)  $\{1, 3\} \in A \cap B$
- (c)  $8 \in A \cap B \cap C^c$
- (d)  $2, 3 \subseteq B \cap C$
- (e)  $3 \in A \cap B^c \cap C$

8. Which of the following describes the shaded area?

- (a)  $A \cap B \cap C^c$
- (b)  $(A \cup B) \cap C$
- (c)  $(A^c \cup B^c) \cap C$
- (d)  $(A \cap B) \cup C$
- (e)  $(A^c \cap B^c) \cup C$





14. In a club of 10 people, how many ways are there of selecting an executive committee consisting of a president, a vice president, a secretary, and a treasurer?

(a) 3024

(d) 210

(b) 5040

(e) 1972

(c) 126

15. What is  $\frac{949!}{946!}$  ?

(a) 851970444

(d) 81684

(b) 1.08317

(e) 39642900

(c) 949