

Lab for Sections 3.2

Name _____

Use good notation and show appropriate work.

1. Use De Morgan's laws to rewrite the negation of each of the following statements.
 - (a) Math 102 meets on Thursday mornings and tomorrow is not Friday.

 - (b) My work is not done on time or I need to study more.

2. Construct a truth table for each of the following.
 - (a) The pan is not a pot and the quick are not quiet.
 - (b) It is not true that Pat is poetic or Quinn is quixotic.

- (c) The paint is porous, or it is not true that the quip is a quibble and the roof is not rotten.

3. A bank offers an interest-bearing checking account. Their brochure says:
“If you have direct deposit and if you either have had an account with us for at least five years or are at least 65 years of age, or if you have a minimum daily balance of at least \$10,000, then you qualify for our interest-bearing checking account.”

Determine whether each of the following people qualifies for the interest-bearing checking account.

- (a) Jake does not have direct deposit, but he has had an account for 30 years and is 73 years old. His balance is usually under \$5,000.
- (b) Joan is 23 years old, has direct deposit, and has had an account for 3 months, and has a minimum daily balance of \$23,000.
- (c) Krystal has a minimum daily balance of \$8,200, has direct deposit, and is 67 years old.
- (d) Ruben is 19 years old, has had an account for his entire life (started by his parents but in his name), directly deposits his paychecks, and, like most college students, often has only \$20 in his account.