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**1**. Let *p, q*, and *r* be the following statements:   
       *p*: Sylvia is at the park.  
       *q*: Jamie is on the train.  
      *r*: Nigel is in the car.   
   
Translate the following statement into English:  (~q http://takeexam.next.ecollege.com/ec/courses/42071/CRS-MAT1002-3674588/MAT1002_W3_wedge.jpgp) http://takeexam.next.ecollege.com/ec/courses/42071/CRS-MAT1002-3674588/MAT1002_W3_Arrow.jpg~r

**2.** Construct a truth table for ~q http://takeexam.next.ecollege.com/ec/courses/42071/CRS-MAT1002-3674588/MAT1002_W3_Arrow.jpgp.

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| |  | | --- | | **3.** Construct a truth table for (p http://takeexam.next.ecollege.com/ec/courses/42071/CRS-MAT1002-3674588/MAT1002_W3_wedge.jpg~q) ↔ q.  **4.** Let p represent the statement, "Jim plays football", and let q represent "Michael plays basketball". Convert the following compound statement into symbols.  Jim does not play football or Michael does not play basketball.  **5.** Let p represent a true statement, while q and r represent false statements. Find the truth value of the compound statement.  (p http://takeexam.next.ecollege.com/ec/courses/42071/CRS-MAT1002-3674588/MAT1002_W3_Vee.jpgq) http://takeexam.next.ecollege.com/ec/courses/42071/CRS-MAT1002-3674588/MAT1002_W3_wedge.jpg~r  **6.** Determine which, if any, of the three statements are equivalent. I) If I am hungry, then I will not be able to concentrate at the meeting. II) Either I am not hungry or I will be able to concentrate at the meeting. III) If I am able to concentrate at the meeting, then I am not hungry. | |



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| 8. Write the statement in symbols using the p and q given below. Then construct a truth table for the symbolic statement.  p = The doctor prescribed medicine.  q = The patient has recovered.  The doctor did not prescribe medicine but the patient recovered. |



