**/132 Math First Quiz**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ID:\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q1:** Find the inverse and contrapositive of the proposition: “x=5 when y>3”.

**Q2:** Construct the truth table of the proposition “$(p∨q)\rightarrow (¬q\leftrightarrow r)$” and deduce from it if it is tautology, contradiction or contingency. Explain your choice.

**Q3:** Show that the proposition “$¬(p∨q)\rightarrow ¬q$” is a tautology without using truth

tables.

**Q4:** Show that $p∧(p∨q)≡p$.