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Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Suppose $p$ and $r$ are false statements, and $q$ is a true statement. What is the truth value of $q \vee(p \wedge \sim r)$ ? (Show your work.)
2. (4 points) Construct the truth table for $(\sim q) \longrightarrow(\sim p)$.
3. (4 points) Let $p$ be the statement "The school mascot is a gopher" and let $q$ be the statement "The school is in Ohio."
(a) Write in symbolic form: "If the school is not in Ohio, then its mascot is a gopher."
(b) Suppose $p$ is true and $q$ is true. What is the truth value of the statement in part (a)?
