1. Determine the number of equivalence classes of quadratic forms of discriminant $\Delta = 120$ and list one form from each equivalence class.

2. Do the same thing for $\Delta = 61$.

3. (a) Find the smallest positive nonsquare discriminant for which there is more than one equivalence class of forms of that discriminant. (In particular, show that all smaller discriminants have only one equivalence class.)

(b) Find the smallest positive nonsquare discriminant for which there are two inequivalent forms of that discriminant, neither of which is simply the negative of the other.

4. (a) For positive elliptic forms of discriminant $\Delta = -D$, verify that the smallest value of *D* for which there are at least two inequivalent forms of discriminant -D is D = 12.

(b) If we add the requirement that neither of the two inequivalent forms is a constant multiple of some other form with smaller D, then what is the smallest D?

5. Determine all the equivalence classes of positive elliptic forms of discriminants -67, -104, and -347.

6. (a) Determine all the equivalence classes of 0-hyperbolic forms of discriminant 49. (b) Determine which equivalence class in part (a) each of the forms $Q(x, y) = 7xy - py^2$ for p = 0, 1, 2, 3, 4, 5, 6 belongs to.