## Homework

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Consider the following set of lines  $L = \{a, b, c, d, e, f\}$  in the plane.



Draw the set of dual points  $P^* = \{a^*, b^*, c^*, d^*, e^*, f^*\}$  and their convex hull. Use the standard dual,  $p : (a, b) \rightarrow l : y = ax - b$ , and the properties that we discussed in class:

- 1. Incidence preserving: If a point p is on a line l, than the dual point  $l^*$  is on the dual line  $p^*$ .
- 2. Order preserving: If a point p is above a line l, than the dual line  $p^*$  is below the dual point  $l^*$ .