## 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 $P^{*}=\left\{a^{*}, b^{*}, c^{*}, d^{*}, e^{*}, f^{*}\right\}$ and their convex hull. Use the standard dual, $p:(a, b) \rightarrow l: y=a x-b$, 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 $l^{*}$.
