## Lesson 3 Practice Problems

1. Apply each transformation described to Figure A. If you get stuck, try using tracing paper.

a. A translation which takes $P$ to $P^{\prime}$
b. A counterclockwise rotation of A , using center $P$, of 60 degrees
c. A reflection of A across line $\ell$
2. Here is triangle $A B C$ drawn on a grid.

|  |  |  |  |  |  |  | $C$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $A$ |  |  |  |  | $C$ |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $B$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
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On the grid, draw a rotation of triangle $A B C$, a translation of triangle $A B C$, and a reflection of triangle $A B C$. Describe clearly how each was done.
3. Here is quadrilateral $A B C D$ and line $\ell$.


Draw the image of quadrilateral $A B C D$ after reflecting it across line $\ell$.
(From Unit 1, Lesson 2.)

