## 6. 3 Leap Frog

## A Solidify Understanding Task



Josh is animating a scene in which a troupe of frogs is auditioning for the Animal Channel reality show, "The Bayou's Got Talent". In this scene the frogs are demonstrating their "leap frog" acrobatics act. Josh has completed a few key images in this segment, and now needs to describe the transformations that connect various images in the scene.

For each pre-image/image combination listed below, describe the transformation that moves the pre-image to the final image.

- If you decide the transformation is a rotation you will need to give the center of rotation, the direction of the rotation (clockwise or counterclockwise), and the measure of the angle of rotation.
- If you decide the transformation is a reflection, you will need to give the equation of the line of reflection.
- If you decide the transformation is a translation you will need to describe the "rise" and "run" between pre-image points and their corresponding image points.
- If you decide it takes a combination of transformations to get from the pre-image to the final image, describe each transformation in the order they would be completed.

| Pre-image | Final Image | Description |
| :---: | :---: | :---: |
| image 1 | image 2 | Translate right (0 UP7 |
| image 2 | image 3 | Rotate $180^{\circ}$ about $(15,27)$ |
| image 3 | image 4 | Rotatl $180^{\circ}$ about $(19,20)$ |
| image 1 | image 5 | $T:(x, y-12) / R_{X=18}$ |
| image 2 | image 4 |  |

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