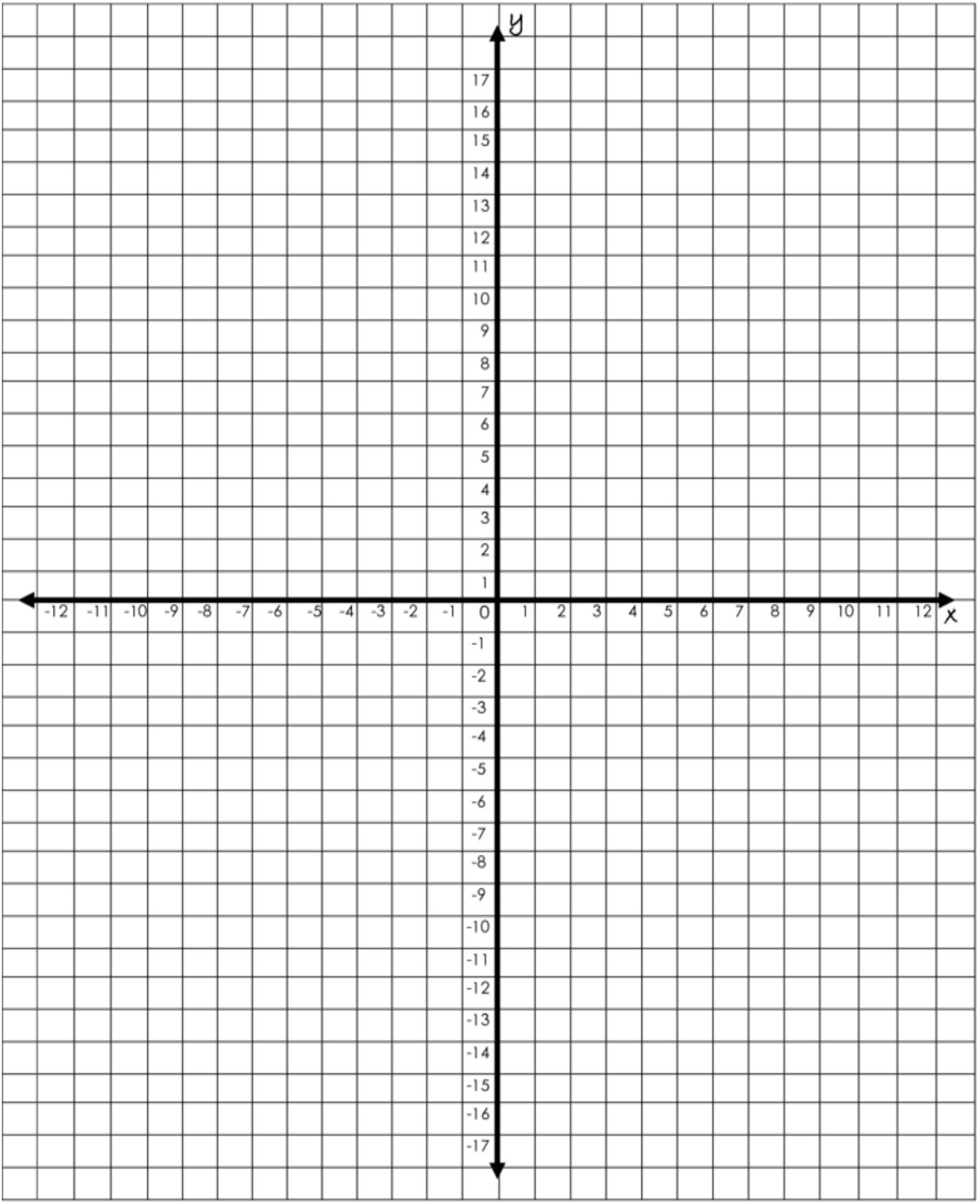
Name: _____ Per: _____

THANKSGIVING TURKEY TRANSFORMATIONS

You will need graph paper and a ruler to complete this project. Follow each step by graphing the original ordered pairs on the coordinate plane. Connect each point using a straight edge and stopping at the end of each section.

1. **TOP FEATHER**
   Plot the points of the top feather and connect the points:
   (0, 0), (-3, 10), (0, 12), (3, 10), (0, 0)
2. **FEATHER #2**
   Rotate the top feather by 90°
3. **FEATHER #3**
   Rotate the top feather by 270°
4. **FEATHER #4**
   Plot the following points to create another feather:
   (0, 0), (-10, 3), (-10, 7), (-7, 7), (0, 0)
5. **FEATHER #5**
   Reflect feather #4 across y = -x
6. **FEATHER #6**
   Plot the following points to create another feather:
   (0, 0), (10, 3), (10, 7), (7, 7), (0, 0)
7. **FEATHER #7**
   Reflect feather #6 across y = x
8. **BODY**
   Plot the points of the body and connect them with a straight edge:
   (-2, 4), (2, 4), (4, 0), (2, -4), (-4, 0), (-2, 4)
9. **HEAD**
   Dilate the body by a scale factor of ½ and then translate those points by the rule:
   (x, y) → (x, y + 6). **NOW PLOT THE TRANSLATED POINTS.**
10. **HAT**
    Apply the rule to the following points (x, y) → (3x, y). Connect the points. **DO NOT PLOT THE ORIGINAL POINTS, JUST THE DILATED POINTS!**
    (0, 8), (-1, 8), (-1, 9), (- $^1/_3$, 9), (- $^1/_3$, 11), (0, 11), ($^1/_3$, 11), ($^1/_3$, 9), (1, 9), (1, 8), (0, 8)
11. **EYES**
    Plot a point at (-1, 6.5) and (1, 6.5) for the eyes. Do not connect theses points.
12. **BEAK**
    Plot the points (-1, 5), (0, 4), (1, 5) and connect them to create a triangle. Reflect the triangle across y = 5.
13. **RIGHT FOOT**
    Plot the points and connect them:
    (1, -4), (3, -4), (3, -5), (1, -5)
14. **LEFT FOOT**
    Reflect the right foot across the y-axis
15. **DECORATE YOUR TURKEY!!!**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