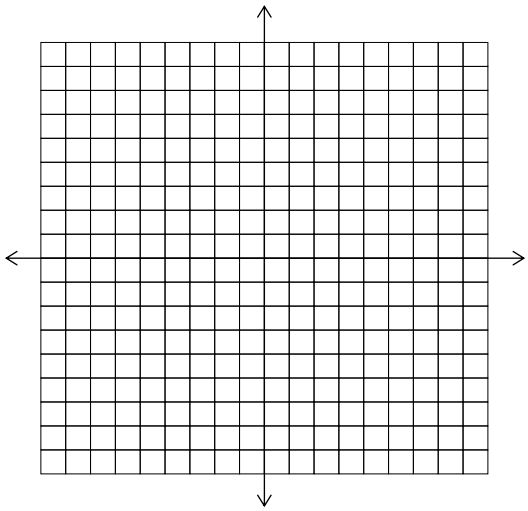
# Unit 11 Study Guide

## Transformations

*Use for 1 & 2: On the graph at right, plot, label, and connect in order the following points:*

*A*(4, 1)  *B*(1, 3)  *C*(5, 2)

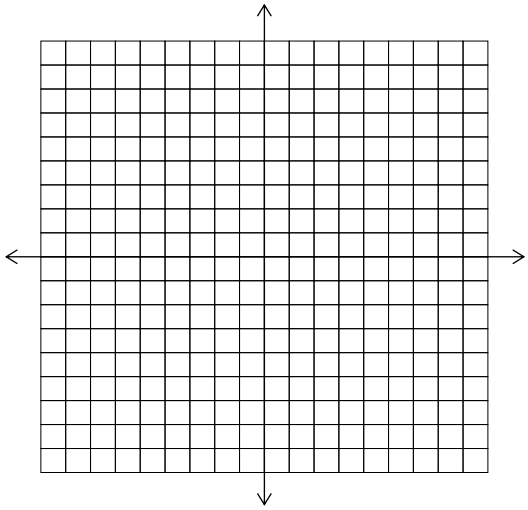


1.) Reflect $\Delta ABC$ across the *x*-axis. Label the new triangle $\Delta A'B'C'$.

2.) Are $\Delta ABC$ and $\Delta A'B'C'$ similar? Explain completely, justifying your answer.

*Use for 3 & 4: On the graph at right, plot, label, and connect in order the following points:*

D(0,-2)  E(4,-2)  F(1,-4)



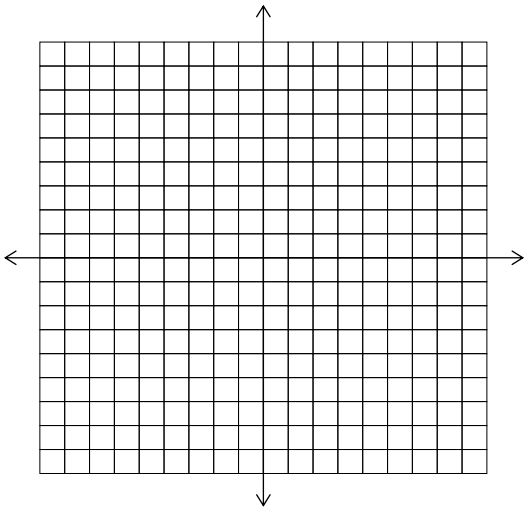
3. Multiply each coordinate of $\Delta DEF$ by –1.5, and plot the new triangle, labeling it $\Delta PQR$.

4. Is $\Delta PQR$ similar to the original $\Delta DEF$? Explain why or why not, being clear and complete.

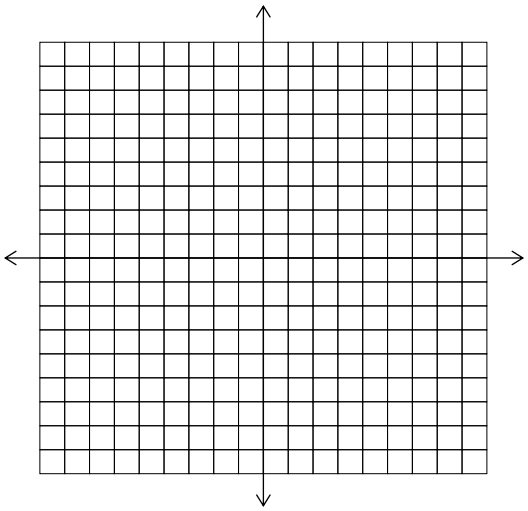
5. If you translate the point (-3, 5) down 10 units and left 5 units, what would the new coordiantes be?

Review

6. Graph $y = -\frac{4}{3}x - 2$



7. Graph $y = -2x - 4$



8. Solve for r: $3h - 2r - 4(h + 2r) = 5r - 4r + 2h$

9. Solve for x: $\frac{5.4}{4x} = \frac{5}{3}$

10. Solve for *x*: $\frac{3x}{4} + \frac{x}{5} + \frac{1}{5} = 3x + 2$

11. The two figures at right are similar. Solve for both *x* , *y and z*. Show all work!