

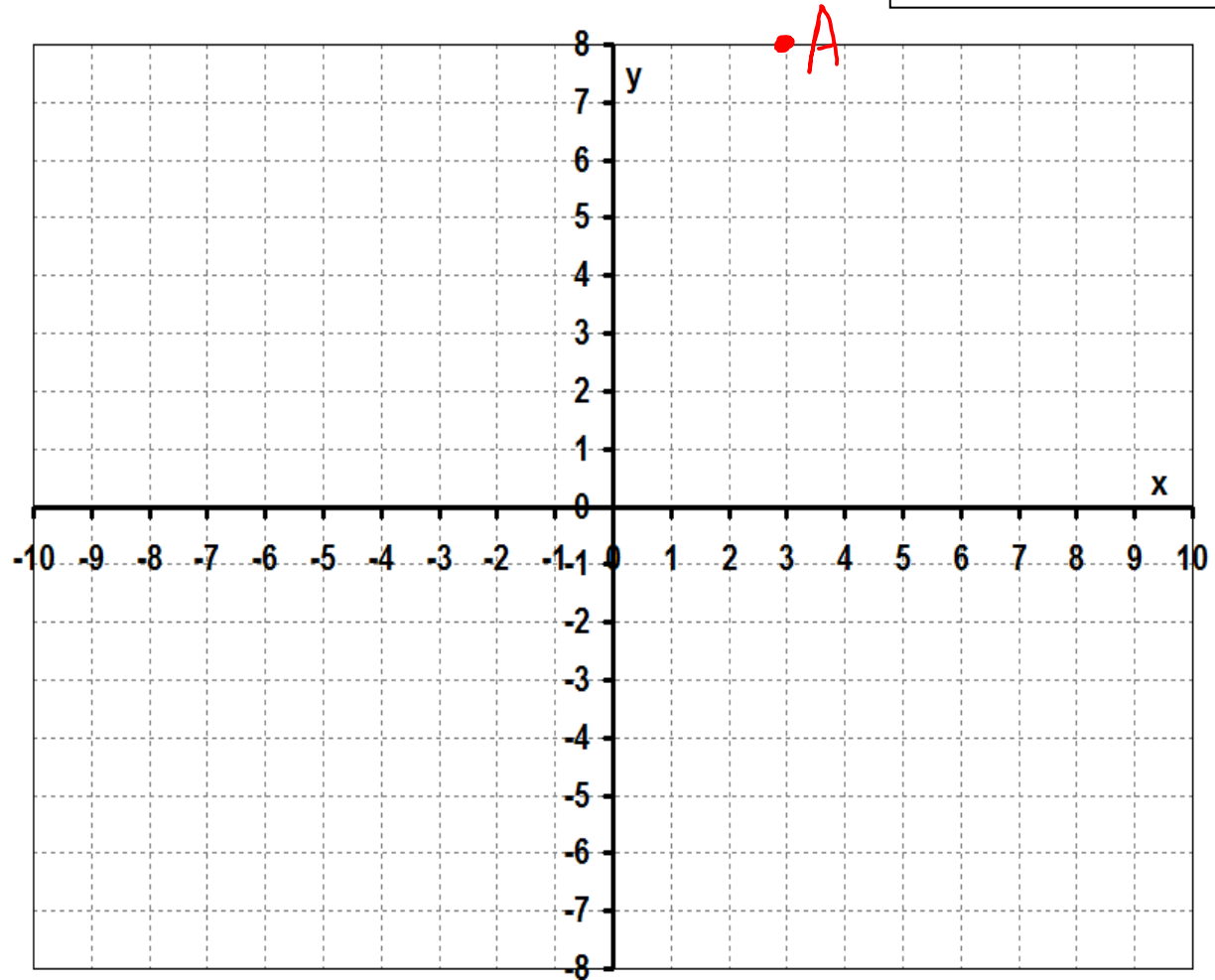
MrF

**GRADE 10 ESSENTIAL
UNIT G – TRANSFORMATIONS****TRANSLATION & REFLECTION ASSIGNMENT**

Name: _____

Date: _____

1. Plot and **label**
the following
points on the
Cartesian (x, y)
grid.

A (3, 8)**B** (2, 5)**C** (-3, 7)**D** (-6, -5)**E** (8, -2)**F** (0, 0)**G** (-9, 4)

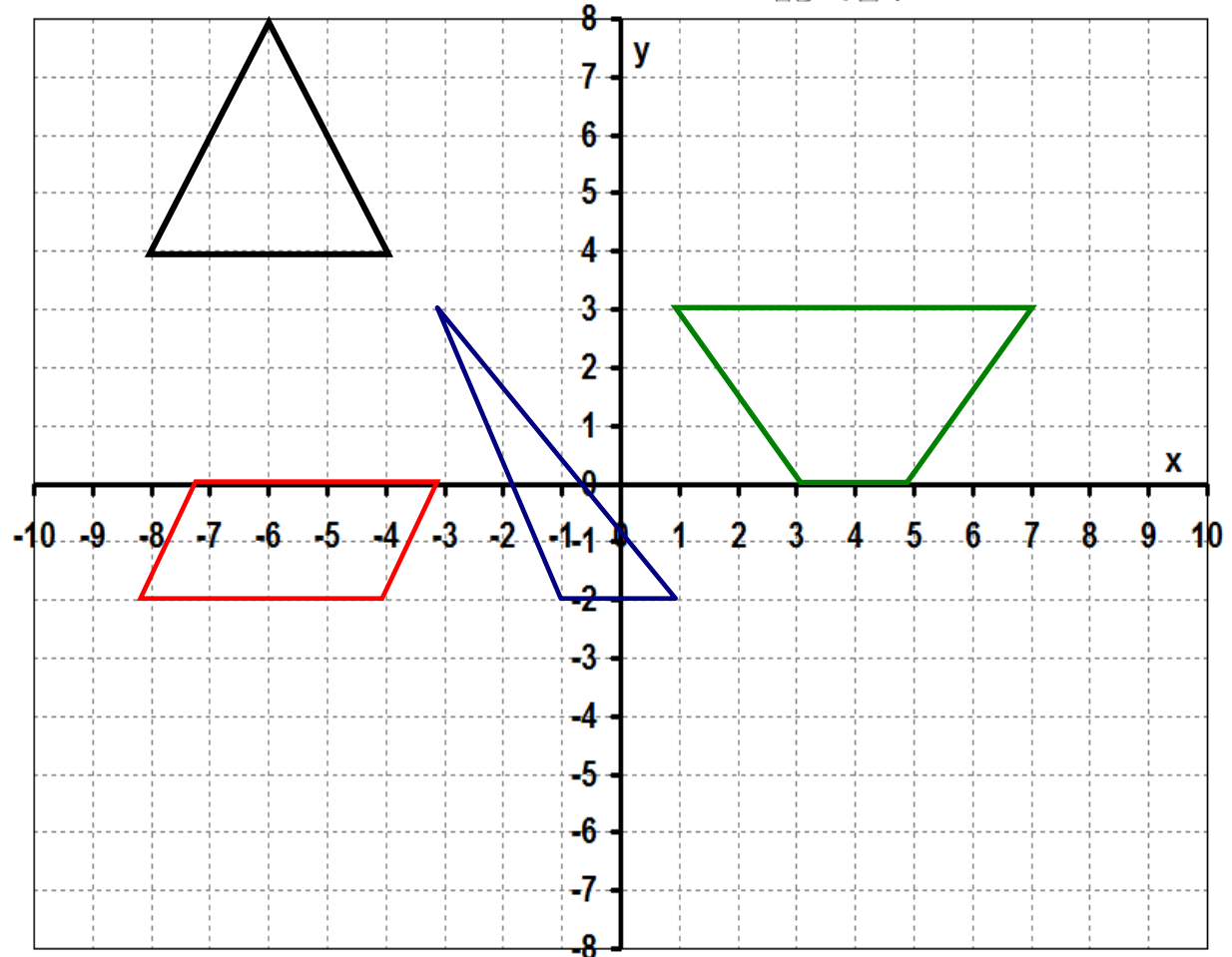
2. Perform a translation of the figures at the right by the indicated transformation:

a. the isosceles triangle (R3, D2).

b. the parallelogram (-3, +4)

c. the trapezoid (R2, U4).

d. the obtuse triangle $\begin{bmatrix} 3 \\ -5 \end{bmatrix}$



3. Perform a reflection of the figures by the indicated transformation:

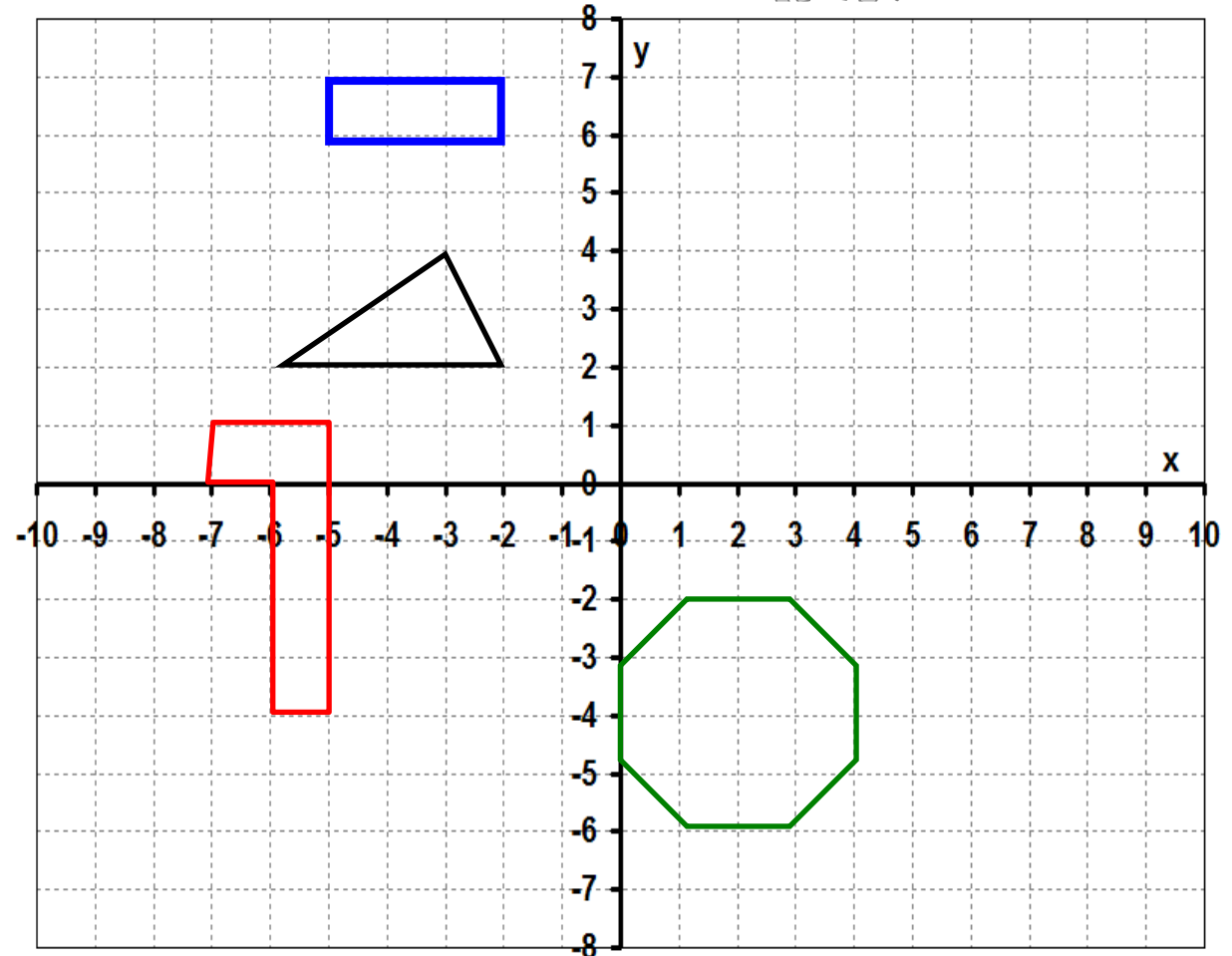
a. the scalene triangle across the x-axis.

b. irregular rectilinear shape through the y-axis.

c. octagon through the y-axis.

d. rectangle through the x-axis *and then* through the y-axis. (double transformation!)

e. octagon through the x-axis.



MrF

You may not have learned rotations yet, but can you figure these out?? You can always read ahead! Do your own research!

4. Perform a rotation about the origin $(0, 0)$ for the following as indicated.

- the rectangle, a 90° clockwise rotation.
- the scalene triangle, a 180° rotation.
- the trapezoid, a 90° rotation anti-clockwise.
- the circle, a 90° rotation clockwise about the origin **then** a reflection through the y-axis.
- you invent a transformation of your own.

****Bonus.** How do you know the triangle is scalene?***

