Use the Reflections EdPuzzle notes to answer the following questions.

1.      Reflections is a _____ image. It is often the _____ IMAGE of the PREIMAGE.

2.      Reflection is NOT a change in _____ or _____.

3.      Reflections are performed over lines of _____ . These lines divide the coordinate plane into two _____ parts.

| Lines of Reflection | Formula/Rule | Example |
|---|---|---|
| **x-Axis**  | (x,y) -> (x,-y) | Find the **IMAGE** for each point when reflected over the x-axis: <br> A (2, 4) -> A' <br> B (-3, -3) -> B' <br> C (0, -3) -> C' |
| **y-Axis**  | (x,y) -> (-x,y) | Find the **IMAGE** for each point when reflected over the y-axis: <br> A (2, 4) -> A' <br> B (-3, -3) -> B' <br> C (0, -3) -> C' |
| **y = x**  | (x,y) -> (y,x) | Find the **IMAGE** for each point when reflected over line y = x: <br> A (2, 4) -> A' <br> B (-3, -3) -> B' <br> C (0, -3) -> C' |

| y = -x | (x,y) -> (-y,-x) | Find the **IMAGE** for each point when reflected over line y = -x: |
|---|---|---|
|  | | A (2, 4) -> A'<br>B (-3, -3) -> B'<br>C (0, -3) -> C' |

Write the coordinates obtained after the reflections over the following lines of symmetry.

1) K(1, 0), L(4, 1), M(1, 4), N(−2, 3) reflect over x axis:

K' _____        L' _____

M' _____        N' _____

2) E(−8, −8), F(−6, −10), G(−2, −8), H(−6, −6) reflect over y axis:

E' _____        F' _____

G' _____        H' _____

3) T(−3, −1), U(1, −2), V(2, 2), W(−1, 1) reflect over line y = x:

T' _____        U' _____

V' _____        W' _____

4) C(6, 1), D(4, 3), E(6, 5), F(10, 1) reflect over line y = -x:

C' _____        D' _____

E' _____        F' _____

Geometry G

Transformations Guided Notes: Reflections

Name: _____

Date: _____          Period: 2 4  5

Determine the which line of symmetry is being reflected over:









**LIVEWORKSHEETS**