Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Topic 3 Review Worksheet

For questions 1 – 4, tell whether each transformation appears to be a reflection.

 1. \_\_\_\_\_\_\_\_\_ 2.  \_\_\_\_\_\_\_\_\_

 3.  \_\_\_\_\_\_\_\_\_ 4.  \_\_\_\_\_\_\_\_\_

For questions 5 – 8, graph each image given the transformation described.

|  |  |
| --- | --- |
| 5.  if , , Go07an_1201praB_11[+AK]-A | 6. if , , Go07an_1201praB_11[+AK]-A  |
| 7.  if , , , Go07an_1201praB_11[+AK]-A | 8.  if , , , Go07an_1201praB_11[+AK]-A |

**For questions 9 – 12, tell whether each transformation appears to be a translation.**

 9.   \_\_\_\_\_\_\_\_\_ 10.  \_\_\_\_\_\_\_\_\_

 11.   \_\_\_\_\_\_\_\_\_ 12.   \_\_\_\_\_\_\_\_\_

For questions 13 – 14, graph each image given the transformation described.

|  |  |
| --- | --- |
| 13.  if , , Go07an_1201praB_11[+AK]-A | Go07an_1201praB_11[+AK]-A14.  if , , ,  |

 15. A builder is trying to level out some ground with a front-end loader. He picks up some excess dirt at  and then maneuvers through the job site along the vectors , , and to get to the spot to unload the dirt.

 a. At what ordered pair does the builder unload the dirt?

 b. Write a composition of transformations that represents the *sequence of maneuvers* the builder takes.

 c. Write a transformation to move the builder to the unloading spot in a single maneuver.

For questions 16 – 19, graph each image given the transformation described.

|  |  |
| --- | --- |
| 16.  if , , Go07an_1201praB_11[+AK]-A | Go07an_1201praB_11[+AK]-A17.  if , , ,  |
| 18.  if , , Go07an_1201praB_11[+AK]-A | Go07an_1201praB_11[+AK]-A19.  if , , ,  |



20. △RST is reflected across the y-axis, and then its image is reflected across the x-axis. Which single transformation moves the triangle from its starting position to its final position?

21. Tell whether each figure has reflectional symmetry. If so, draw all lines of symmetry.

![Go07an_1205praB_02[+3AK]A]()![Go07an_1205praB_04[+5AK]A]() a.   b.    c.

22. Anna, Bob, and Otto write their names in capital letters. Draw all lines of symmetry for each whole name if possible.

|  |  |  |
| --- | --- | --- |
| **ANNA** | **BOB** | **OTTO** |

23. Tell whether each figure has rotational symmetry. If so, give the angle(s) of rotational symmetry.

|  |  |  |
| --- | --- | --- |
| Go07an_1205praB_08a.  | Go07an_1205praB_09b.  | Go07an_1205praB_10c. |

**For questions 24 – 26, use correct notation to write the composition of transformations that is shown.**

|  |  |  |
| --- | --- | --- |
| 24. | 25. | 26. |

**For questions 27 – 28, graph each composition of transformations given, , .**

|  |  |
| --- | --- |
| 27.   | 28.  |