**Unit 8 - Identifying and Analyzing Transformations**

**REGENTS MULTIPLE CHOICE QUESTIONS**

**DO NOT WRITE ON ME!!!**

**Answer questions on a separate piece of paper.**

**(Answers on last page.)**

1) A polygon is transformed according to the rule: . Every point of the polygon moves two units in which direction?

1) up 2) down 3) left 4) right

2) Which transformation is an example of an opposite isometry?

|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

3) Which transformation represents a dilation?

|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

4) Which type of transformation is ?

|  |  |
| --- | --- |
| 1) | dilation |
| 2) | reflection |
| 3) | rotation |
| 4) | translation |

5) The coordinates of any point  after a reflection in the *x*-axis can *always* be represented by

|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

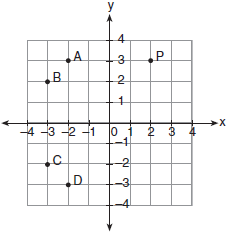
6) Which transformation is *not* an isometry?

|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

7) Under the transformation *,* which property is not preserved?

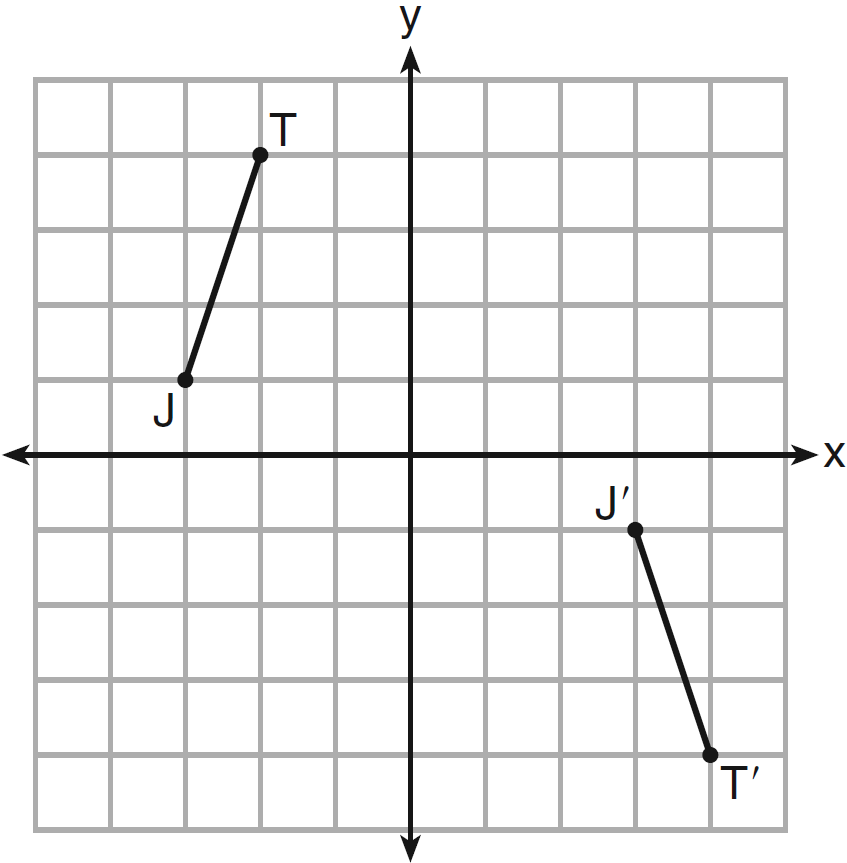
|  |  |
| --- | --- |
| 1) | distance |
| 2) | orientation |
| 3) | parallelism |
| 4) | angle measure |

8) In the accompanying graph, if point *P* has coordinates , which point has coordinates ?



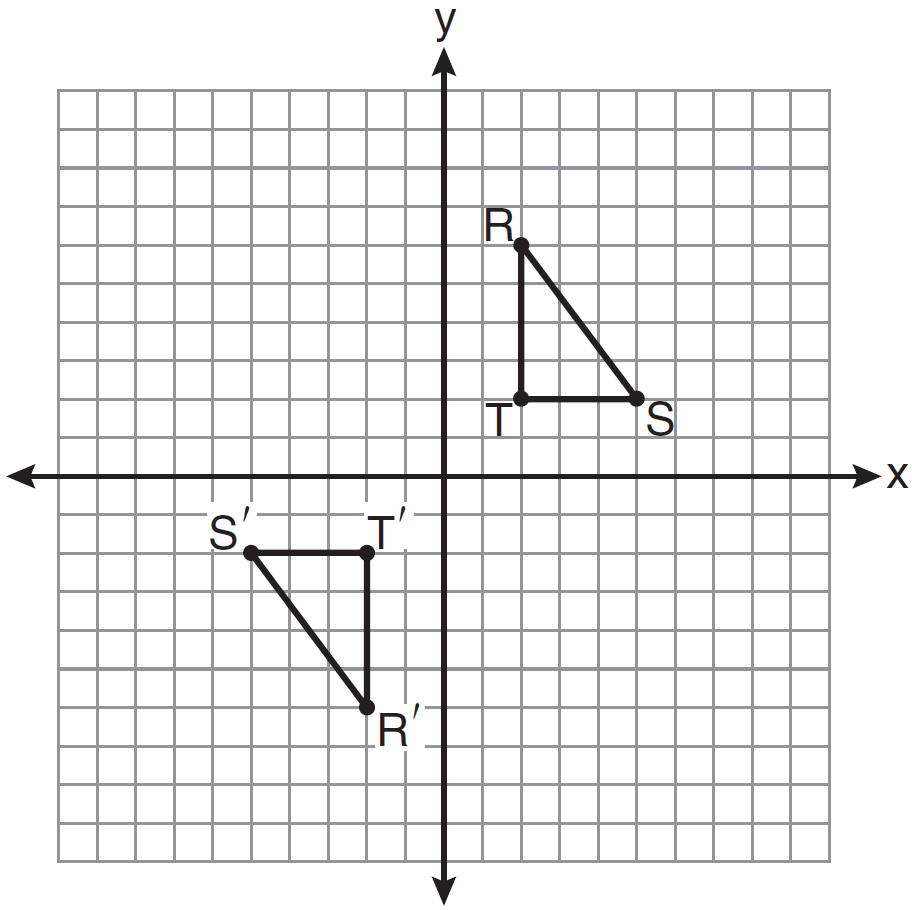
|  |  |
| --- | --- |
| 1) | *A* |
| 2) | *B* |
| 3) | *C* |
| 4) | *D* |

9) The graph below shows  and its image, , after a transformation. Which transformation would map  onto ?



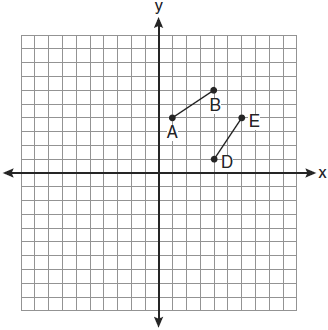
|  |  |
| --- | --- |
| 1) | translation |
| 2) | glide reflection |
| 3) | rotation centered at the origin |
| 4) | reflection through the origin |

10) As shown on the graph below,  is the image of  under a single transformation. Which transformation does this graph represent?



|  |  |
| --- | --- |
| 1) | glide reflection |
| 2) | line reflection |
| 3) | rotation |
| 4) | translation |

11) The diagram below shows  and . Which transformation will move  onto  such that point *D* is the image of point *A* and point *E* is the image of point *B*?

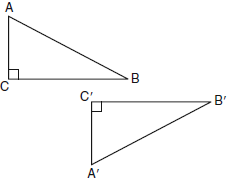


|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

12) Which transformation is *not* always an isometry?

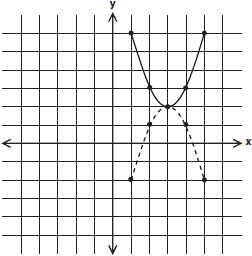
|  |  |
| --- | --- |
| 1) | rotation |
| 2) | dilation |
| 3) | reflection |
| 4) | translation |

13) In the diagram below, which transformation was used to map  to ?



|  |  |
| --- | --- |
| 1) | dilation |
| 2) | rotation |
| 3) | reflection |
| 4) | glide reflection |

14) In the accompanying diagram, which transformation changes the solid-line parabola to the dotted-line parabola?



|  |  |
| --- | --- |
| 1) | translation |
| 2) | line reflection, only |
| 3) | rotation, only |
| 4) | line reflection or rotation |

15) Which transformation is an opposite isometry?

1) dilation 2) line reflection 3) rotation of 90° 4) translation

16) Which transformation is a direct isometry?

|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

1. 4
2. 3
3. 4
4. 4
5. 3
6. 3
7. 1
8. 2
9. 2
10. 3
11. 4
12. 2
13. 4
14. 4
15. 2
16. 4