CSS: Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in the real-world and mathematical problems in two and three dimensions.

Name: $\qquad$ Date: $\qquad$ Per.: $\qquad$
LT Pre Test
Directions: Show what you know about the following topic by completing the problems below.
Make sure to show all work.

| 1. What is the Pythagorean Theorem? | 2. What is a right triangle and the names of the <br> side lengths of a right triangle? You should draw a <br> picture to help your description. |
| :--- | :--- |
| 3. What does two- dimensional mean? What does |  |
| three-dimensional mean? |  |
| 5. Find the area on the shapes below. Find the unknown angle. |  |
| a) |  |

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6. a) Use the coordinates listed to draw the given polygon on the coordinate system. $A(1,2) B(0,4) C(0$, 6) $D(1,8) E(5,8) F(4,6) G(4,4) H(3,2) I(1,2)$

b) Find the length of the line from point $B$ to $C$ and the length of the line from point $D$ to $E$.
8. Use facts about complementary, supplementary, vertical and adjacent angles to find the missing angles in the picture below.

(7.G.5)
9. Use the Pythagorean Theorem to find the missing side length in the triangle.

10. Use the Pythagorean Theorem to find the missing side length.


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