We presents below mathematical problems which are related to **geometry distance** concept. This concept can be related to pythagorean Theorem concept.

Some online resources, such as 1, discuss how to prepare SAT toward understanding this concept.

Problem 1.1: Find the distance between A(2,0) and B(5,4)?
Problem Analysis: This is the shallow verbalized algebra-and-geometry problem. Students need to understand the concept behind problem narrative. It is a forward reasoning problem.

Problem 1.2: There exists two points A(2,4) and B(5,v), the distance between A and B is 5. What is the value of v?
Problem Analysis: This is the shallow verbalized algebra-and-geometry problems. In compared to Problem 1.1, this problem requires students to reason in a backward manner.

Problem 2.1: The class of math is mapped on a coordinate grid with the origin being at the center point of the hall. Mary's seat is located at the point (-4, 7) and Betty's seat is located at (-2, 5). How far is it from Mary's seat to Betty's seat?

(A) $\sqrt{13}$ units

(B) $2\sqrt{2}$ units

(C) 5 units

(D) 7 units

Problem Analysis: This problem comes from online. This is deep verbalized algebra-and-geometry problem. It requires students to translate this problem as the math distance model and further solve it. It is a multiple-choice problem.

Problem 2.2: You're leading the Shmoopville Beefalos in the championship football game against your bitter rivals, the Yooda City Wildcats. You're 3 yards from the end zone and 4 yards from the sideline, and you throwed the ball 5 yards to Othello to complete the big play. Othello is 7 yards from the end zone. How far does Othello stand from the sideline?

Problem Analysis: This problem comes from online. It is a deep verbalized algebra-and-geometry problem. It requires students to translate this problem as a math distance model and further solve it. It is a student-produced response problem.