PENANG SANGAM HIGH SCHOOL
YEAR 11 PHYSICS
WEEK 4

1. The correct prefix to represent 10^6 is_____.

    A. deca   B. hecto   C. kilo   D. mega

2. Which of the following is an example of a fundamental unit?

    A. Force   B. Ampere   C. Joule   D. Voltage

3. The number of significant figures in 1020.00 is_____.

    A. 2   B. 3   C. 4   D. 6

4. Which of the following quantities represent a vector?

    A. Mass   B. Distance   C. Weight   D. Pressure

5. Express **0.002019** in standard form.

6. The dimensions of a box are given as follows:

length = 27.3 cm	width = 15.5 cm	height = 5.4 cm

    Calculate the volume of the box using the appropriate number of significant figures.

   **Hint : round answer to least number of significant figures**

7. A group of Year 11 students investigated the effect of resultant force (F) on the acceleration (a) of a trolley. The results obtained are shown in the table given below.

F (N)	1.0	2.0	3.0	4.0	5.0	6.0
a (ms^{-2})	0.2	0.4	0.6	0.8	1.0	1.2

(i) plot a graph of acceleration versus force.
(put title first, draw both axis, label axis, Plot points and join them)

(ii) Identify the type of relationship depicted by the graph in (i) above.
(shape of the graph or the table of values will give an idea of the relationship)

8. A vegetable farmer drives 11 km East and then 22 km North from his home to reach his farm as shown in the diagram below.

Farm

22 km

Home

11 km
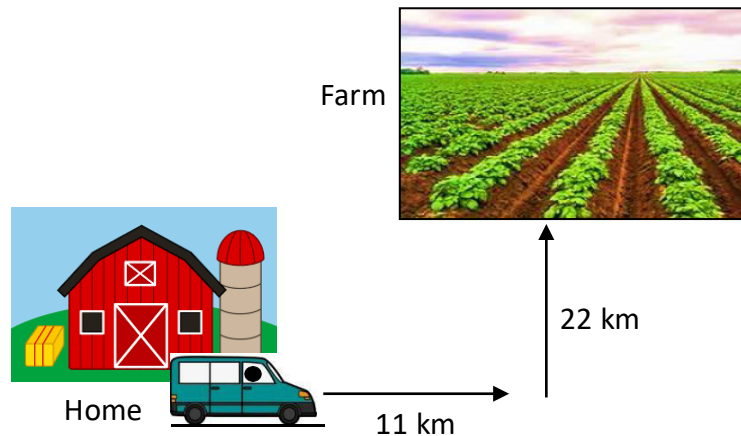
Calculate the displacement of the vegetable farmer at the end of the journey indicating the correct direction.
(vector addition, join starting point to ending point, find the length of the line using Pythagoras theorem)