

SCIENCE 9
3rd Quarter Summative Test A
SY 2020-2021

I. Identify if the quantities below are **scalar** or **vector** quantities.

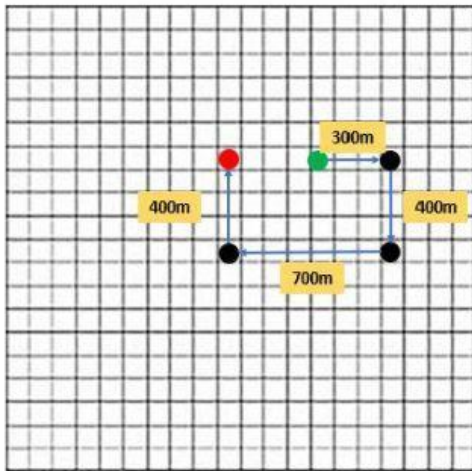
- | | |
|--------------------------|-------------------------------|
| _____ 1. 90 meters north | _____ 4. 140 km/h to the east |
| _____ 2. 30 m/s | _____ 5. 67 kilometers |
| _____ 3. 270 km 45° SW | |

II. Choose **true** if the statement is true, **false** if it is not.

- _____ 1. Force **cannot** stop a moving object.
- _____ 2. When we push our cart in the grocery, it means we put it at rest.
- _____ 3. Displacement is how far the object is from the starting point to the final point.
- _____ 4. The difference between speed and velocity is that speed has direction.
- _____ 5. Acceleration can be done by changing direction while traveling at a constant speed.
- _____ 6. We need to know the distance and time to get the average speed of an object.
- _____ 7. Jennie's displacement is 1 m when she ran exactly 2 laps around a 400-m track.
- _____ 8. Acceleration also includes when an object is gradually stopping.

III. Read and answer the problems carefully. Show your solution on the box, then write your final answer in the box below.

1. ● start point ● end point 1 square = 100 meters

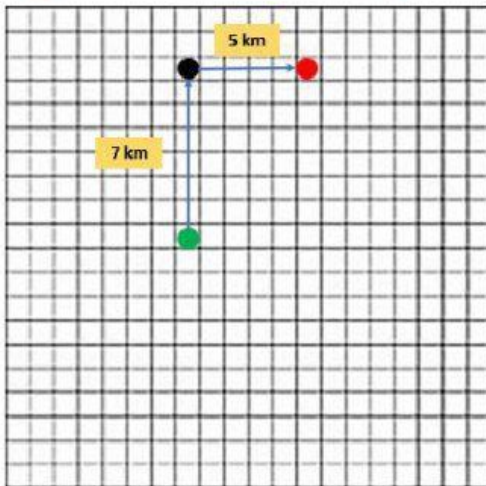


Solution

Distance

Displacement

2. ● start point ● end point 1 square = 1 km



Solution

Distance

Displacement

3. A runner races in the 200-meter dash. It takes her to 25 seconds to finish. What is her average speed?

Solution

Final Answer

4. How long will it take to go 150,000m traveling at 50 km/hr?

Solution

Final Answer

5. A car moves 110 meters from rest within 5 seconds. What is the car's acceleration?

Solution

Final Answer