

Physical quantities

(properties of objects that can be measured)

Length  mm, cm, m, km, ...

Time  sec, min, hours, ...

Mass  g, kg, metric ton, ...

Note: it is not possible to add and/or subtract the numbers corresponding to different physical quantities.

Scalar and vector phys. quantities

Scalars

(magnitude)

Distance along the path

Time, Speed, Work

vs

Vectors

(magnitude & direction)

Displacement

Velocity, Acceleration,
Force



Homework 1

Problem 1. Measure the time of your heartbeat and then use your heartbeat as a timer to measure the time of your favorite song. Compare the result with the real time.

Problem 2. Repeat the measurements 5 times during the day. Write down the numbers. If the results are different – try to explain why.

Problem 3. A bug moves from point A to point B along the path shown below. Measure the total distance the bug passed and displacement. Draw the displacement vector.

