

# 9TH GRADE - SCIENCE

## MOTION

### INTERACTIVE WORKSHEET 01

#### I. Choose the C.G.S. Unit & S.I unit

S.No.	Physical quantity	Formula	C.G.S. unit	S.I unit
1.	distance (d)	-	cm	
2.	displacement ( $\bar{s}$ )	-		m
3.	speed	speed = $\frac{\text{distance}}{\text{time}}$	cm <sup>-1</sup>	
4.	velocity ( $\bar{v}$ )	velocity = $\frac{\text{displacement}}{\text{time}}$		ms <sup>-1</sup>
5.	average speed	$V_{av} = \frac{\text{total distance}}{\text{total time}}$	cm <sup>-1</sup>	ms <sup>-1</sup>
6.	average velocity	$\bar{V}_{av} = \frac{\text{total displacement}}{\text{total time}}$	cm <sup>-1</sup>	ms <sup>-1</sup>
7.	acceleration	$a = \frac{\text{change in distance}}{\text{change in time}} = \frac{\bar{\Delta v}}{\Delta t}$		

#### II. Fill in the blanks

S.No.	Physical quantity	Formula	Scalar / Vector
1.	distance (d)	-	_____
2.	displacement ( $\bar{s}$ )	-	_____
3.	speed	speed = $\frac{\text{distance}}{\text{time}}$	_____
4.	velocity ( $\bar{v}$ )	velocity = $\frac{\text{displacement}}{\text{time}}$	_____
5.	average speed	$V_{av} = \frac{\text{total distance}}{\text{total time}}$	_____
6.	average velocity	$\bar{V}_{av} = \frac{\text{total displacement}}{\text{total time}}$	_____
7.	acceleration	$a = \frac{\text{change in distance}}{\text{change in time}} = \frac{\bar{\Delta v}}{\Delta t}$	_____



# AIMS-INDIA

