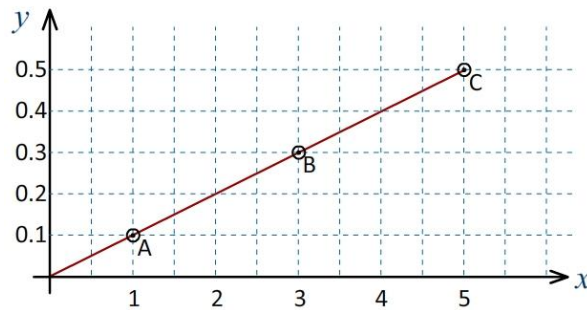
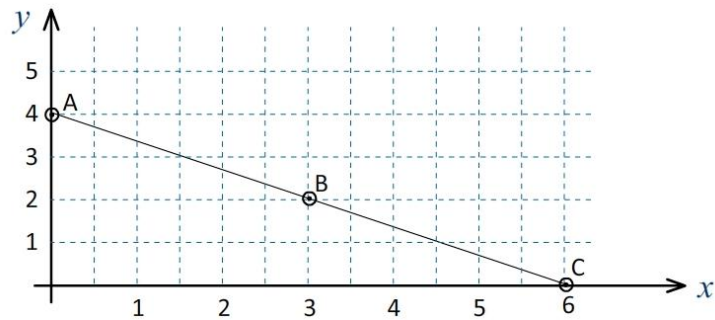


Objective : Determination of slope of a graph and its use in kinematics

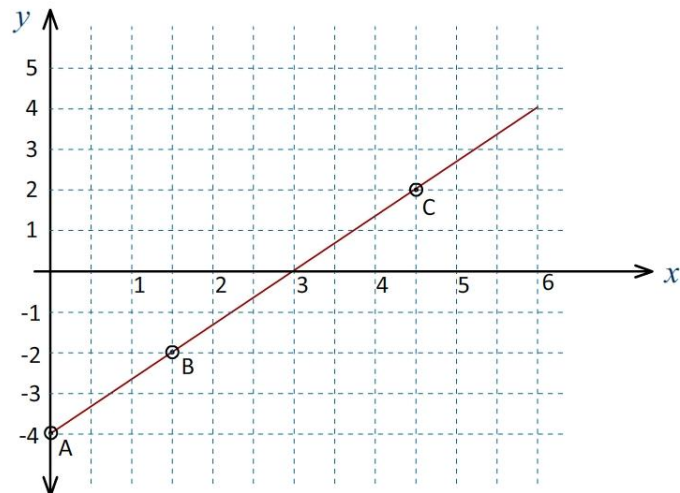
1. Find the slope of the given graph using points (a) AB (b) BC (c) AC



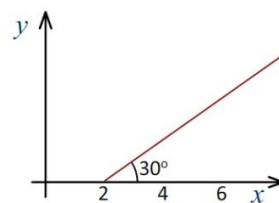
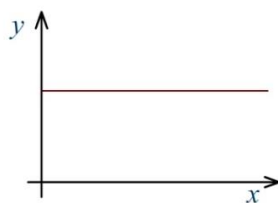
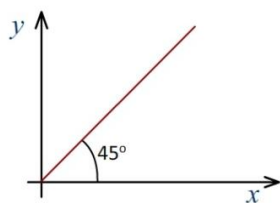
2. Find the slope of the given graph using points (a) AB (b) BC (c) AC



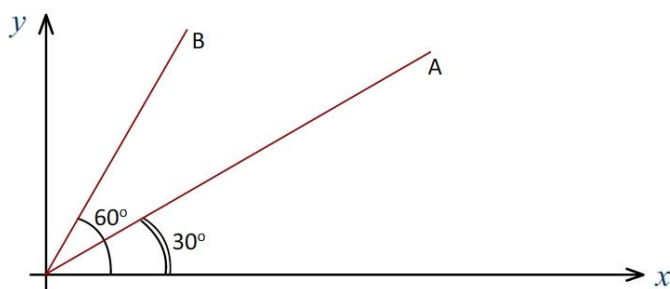
3. Find the slope of the given graph using points (a) AB (b) BC (c) AC



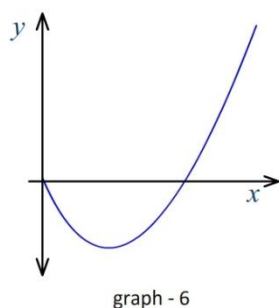
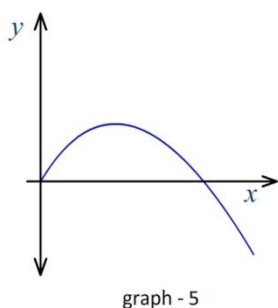
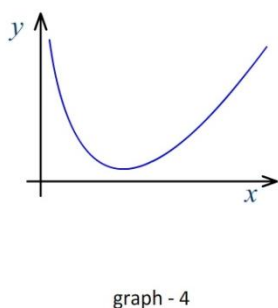
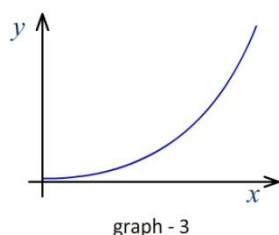
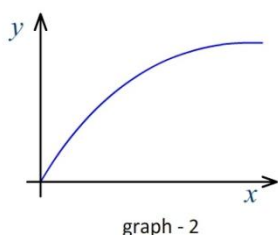
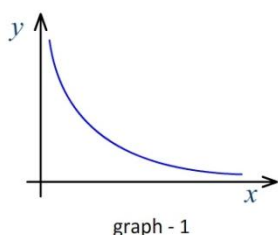
4. Find the slope of each of the lines



5. Find the ratio of slopes of lines A and B.

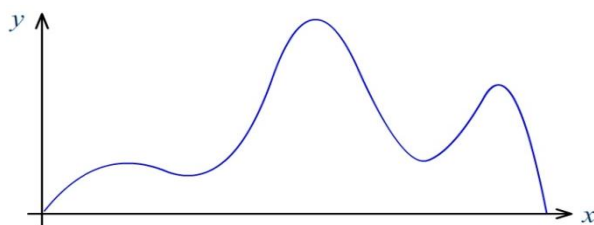


6. Match the statements given with the corresponding graph (more than one graph may be correct for a given statement)

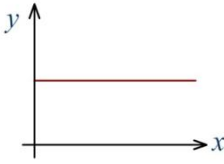
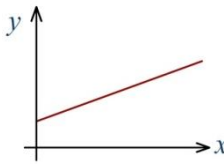
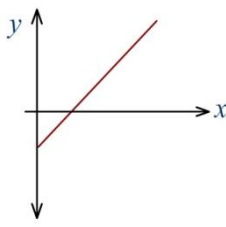
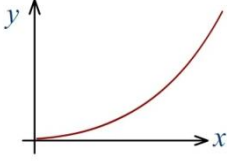
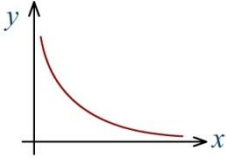


- (a) Slope is initially positive. Slope decreases and approaches zero.
- (b) Slope is initially negative. Slope increases and approaches zero.
- (c) Slope is initially negative, approaches zero and then increases to become positive
- (d) Slope is initially zero and increases
- (e) Slope is initially positive, approaches zero and then decreases to become negative

7. The number of times the slope of the graph becomes zero in the given graph is _____



8. Match the following equations in column I with the corresponding graphs in column II.

(a) $y \propto x^2$	(i) 
(b) $y = -10 + 2x$	(ii) 
(c) $y = 4 \times \frac{1}{x}$	(iii) 
(d) $y = 4 + 1.5x$	(iv) 
(e) $y = 30$	(v) 

9. Slope of displacement of a body (on y – axis) as a function of time (on x – axis) gives _____

10. Slope of velocity of a body (on y – axis) as a function of time (on x – axis) gives _____

Answers

1. 0.1, 0.1, 0.1
2. $-2/3$, $-2/3$, $-2/3$
3. $4/3$, $4/3$, $4/3$
4. 1, 0, $1/\sqrt{3}$
5. 1:3
6. (a) – graph 2
(b) – graph 1
(c) – graph 6, graph 4
(d) – graph 3
(e) – graph 5
7. 5 times
8. (a) – IV
(b) – III
(c) – V
(d) – II
(e) – I
9. velocity
10. acceleration