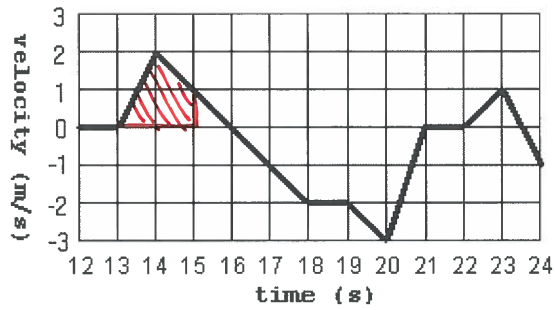
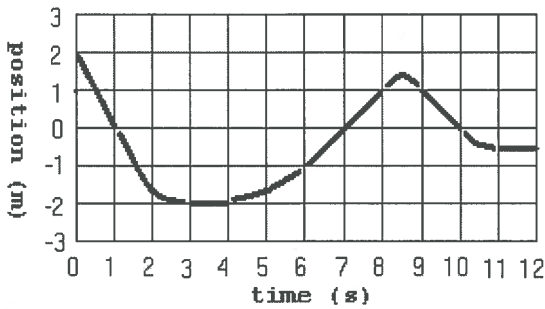


Time	0-1	1-3	3-4	4-6	6-7	7-8	8-8.5	8.5-9	9-10	10-11	11-12
Positive acceleration		✓		✓						✓	
Negative acceleration							✓	✓			
Zero acceleration	✓		✓		✓	✓			✓		✓
Speeding up				✓				✓			
Slowing down		✓					✓			✓	
Constant velocity	✓		✓		✓	✓			✓		✓
Moving right				✓	✓	✓	✓				
Moving left	✓	✓						✓	✓	✓	
Not moving			✓								✓

Time	12-13	13-14	14-16	16-18	18-19	19-20	20-21	21-22	22-23	23-23.5	23.5-24
Positive acceleration		✓					✓			✓	
Negative acceleration			✓	✓		✓					✓
Zero acceleration	✓				✓			✓			
Speeding up		✓		✓		✓			✓		✓
Slowing down			✓				✓			✓	
Constant velocity	✓				✓			✓			
Moving right		✓	✓						✓	✓	
Moving left				✓	✓	✓	✓				✓
Not moving	✓							✓			



1. When is the object neither moving nor accelerating?

3-4, 11-12, 12-13, 21-22s

2. When is the object moving but not accelerating?

0-1, 6-8, 9-10, 18-19s

3. When is the object accelerating but not moving?

8.5, 16, 23.5s

0m 1m/s 0m/s² 4. What are the position, velocity, and acceleration at 7s?

2m 1m/s -1m/s² 5. What are the position, velocity, and acceleration at 15s?

$$\Delta S_{12 \rightarrow 15} = \text{AREA} = 2.5\text{m}$$

$$-0.5 + 2.5 = 2\text{m}$$

-1m -1.5m 6. What are the displacements from 1s to 6s and from 15s to 18s?

$$\text{AREA}_{15 \rightarrow 18} = (+0.5) + (-2) = -1.5\text{m}$$

2m/s -2.5m/s 7. What are the changes in velocity from 0.5s to 3.5s and from 15s to 20.5s?

0.75m/s 0.75m/s 8. What are the average velocities from 4s to 8s and from 12s to 16s?

$$\text{AREA}_{12 \rightarrow 16} = 3\text{m}$$