Balanced vs. Unbalanced Forces

Group#1

1. The diagram below represents the forces acting upon a rightward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?



3. The diagram below represents the forces acting upon a rightward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?



Group#2

5. The diagram below represents the forces acting upon a rightward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?



7. The diagram below represents the forces acting upon a rightward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?



Group#3

9. The diagram below represents the forces acting upon a rightward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



10. The diagram below represents the forces acting upon a leftward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

11. The diagram below represents the forces acting upon a rightward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



12. The diagram below represents the forces acting upon a leftward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

Group#4

13. The diagram below represents the forces acting upon an upward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



14. The diagram below represents the forces acting upon a downward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

15. The diagram below represents the forces acting upon an upward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



16. The diagram below represents the forces acting upon a downward-moving object. Each arrow represents a force; the length of the arrow represents the strength of the force.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

Group#5

17. The motion of a rightward-moving object is represented by a position-time graph. (Consider the positive direction to be to the right.)



18. The motion of a leftward-moving object is represented by a position-time graph. (Consider the positive direction to be to the right.)



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

Group#6

19. The motion of a rightward-moving object is represented by a position-time graph. (Consider the positive direction to be to the right.)



20. The motion of a rightward-moving object is represented by a position-time graph. (Consider the positive direction to be to the right.)



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

21 The motion of a leftward-moving object is represented by a position-time graph. (Consider the positive direction to be to the right.)



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

22. The motion of a leftward-moving object is represented by a position-time graph. (Consider the positive direction to be to the right.)



Group#7

23. The motion of a rightward-moving object is represented by the dot diagram below.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

24. The motion of a leftward-moving object is represented by the dot diagram below.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

Group#8

25. The motion of a rightward-moving object is represented by the dot diagram below.



26. The motion of a rightward-moving object is represented by the dot diagram below.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

27. The motion of a leftward-moving object is represented by the dot diagram below.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

28. The motion of a leftward-moving object is represented by the dot diagram below.



Group#9

29. The motion of an object is represented by a velocity-time graph.







Group#10

31. The motion of an object is represented by a velocity-time graph.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

32. The motion of an object is represented by a velocity-time graph.



33. The motion of an object is represented by a velocity-time graph.



Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?





Group#11

35. The motion of an object is represented by position-time data.

Time (s)	Position (m)
0.0	0.0
1.0	10.0
2.0	20.0
3.0	30.0
4.0	40.0
5.0	50.0

Time (s)	Position (m)
0.0	50.0
1.0	40.0
2.0	30.0
3.0	20.0
4.0	10.0
5.0	0.0

36. The motion of an object is represented by position-time data.

Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

37. The motion of an object is represented by position-time data.

Time (s)	Position (m)
0.0	0.0
1.0	2.0
2.0	6.0
3.0	12.0
4.0	20.0
5.0	30.0

Time (s)	Position (m)
0.0	0.0
1.0	10.0
2.0	18.0
3.0	24.0
4.0	28.0
5.0	30.0

38. The motion of an object is represented by position-time data.

Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

39. The motion of an object is represented by position-time data.

Time (s)	Position (m)
0.0	30.0
1.0	28.0
2.0	24.0
3.0	18.8
4.0	10.0
5.0	0.0

Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

40. The motion of an object is represented by position-time data.

Time (s)	Position (m)
0.0	30.0
1.0	20.0
2.0	12.0
3.0	6.0
4.0	2.0
5.0	0.0

Group#12

41. The motion of an object is represented by velocity-time data.

Time (s)	Velocity (m/s)
0.0	0.0
1.0	2.0
2.0	4.0
3.0	6.0
4.0	8.0
5.0	10.0

Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

42. The motion of an object is represented by velocity-time data.

Time (s)	Velocity (m/s)
0.0	10.0
1.0	8.0
2.0	6.0
3.0	4.0
4.0	2.0
5.0	0.0

43. The motion of an object is represented by velocity-time data.

Time (s)	Velocity (m/s)
0.0	0.0
1.0	- 2.0
2.0	- 4.0
3.0	- 6.0
4.0	- 8.0
5.0	- 10.0

Is this object speeding up, slowing down, or moving at a constant speed? Is this object experiencing balanced forces or unbalanced forces?

44. The motion of an object is represented by velocity-time data.

Time (s)	Velocity (m/s)
0.0	- 10.0
1.0	- 8.0
2.0	- 6.0
3.0	- 4.0
4.0	-2.0
5.0	0.0