Constant Motion Quiz 1

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Section 1: Constant Speed

1. A block of concrete spends 49 seconds moving at 28 m/s.   
   
 How much distance was travelled?

3. A concerning omen moves 429 meters over 39 seconds.   
   
How fast was the concerning omen moving?

5. A bat-a-rang spends 45 seconds moving at 42 m/s.   
   
 How much distance was travelled?

7. A tennis ball moves at 21 m/s, covering 693 meters of distance.   
   
How long did it take to do this?

9. A block of concrete moves at 27 m/s, covering 351 meters of distance.   
   
How long did it take to do this?

## Section 2: Distance and Displacement

11. A boulder goes on a walk, and makes the following movements:   
1. 12 meters East   
2. 10 meters East   
  
What is the total distance and net displacment of the boulder?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

13. A The Infamous Epi Demick goes on a walk, and makes the following movements:   
1. 36 meters South   
2. 34 meters North   
3. 15 meters South   
4. 2 meters South   
  
What is the total distance and net displacment of the The Infamous Epi Demick?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

15. A turtle goes on a walk, and makes the following movements:   
1. 17 meters North   
2. 8 meters North   
3. 5 meters North   
4. 18 meters South   
5. 90 meters North   
6. 51 meters North   
  
What is the total distance and net displacment of the turtle?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

## Section 3: Average Speed

17. A horse and buggy travels 1564 meters in 34 seconds,  
   
 then 1012 meters in 22 seconds.  
   
 What is the average speed of the horse and buggy?

19. A tuba travels 539 meters in 49 seconds,  
   
 then 1178 meters in 31 seconds.  
   
 What is the average speed of the tuba?

21. A crazy karen travels at 12 m/s for 39 seconds,  
   
 then 12 m/s over 312 meters.  
   
 What is the average speed of the crazy karen?

23. A giant spider travels at 13 m/s for 36 seconds,  
   
 then 39 m/s over 936 meters.  
   
 What is the average speed of the giant spider?

## Section 4: Average Velocity

25. A physics student travels 810 meters to the right in 18 seconds,  
   
 then 462 meters to the left in 33 seconds.  
   
 What is the average velocity of the physics student?

27. A crazy karen travels 1530 meters to the right in 45 seconds,  
   
 then 558 meters to the left in 18 seconds.  
   
 What is the average velocity of the crazy karen?

29. A washing machine travels at 10 m/s to the right for 31 seconds,  
   
 then 11 m/s to the left over 506 meters.  
   
 What is the average velocity of the washing machine?

31. A bonsai tree travels at 41 m/s to the right for 15 seconds,  
   
 then 36 m/s to the left over 1548 meters.  
   
 What is the average velocity of the bonsai tree?

## Section 5: Combined Constant

33. A barrel of monkeys travels at 10 m/s to the right for 31 seconds,  
   
 then 19 m/s to the left over 456 meters.  
   
 What is the total distance travelled by the barrel of monkeys? What is the net displacement?  
   
 What is the average speed of the barrel of monkeys? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

35. A very antiquated textbook travels at 45 m/s to the left for 25 seconds,  
   
 then 36 m/s to the right over 396 meters.  
   
 What is the total distance travelled by the very antiquated textbook? What is the net displacement?  
   
 What is the average speed of the very antiquated textbook? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

37. A stunt-seeking daredevil travels at 21 m/s to the left for 35 seconds,  
   
 then 23 m/s to the right for 897 meters,  
   
 and finally 392 meters to the right in 28 seconds.  
   
 What is the total distance travelled by the stunt-seeking daredevil? What is the net displacement?  
   
 What is the average speed of the stunt-seeking daredevil? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

Constant Motion Quiz 2

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Section 1: Constant Speed

1. A vacant doghouse moves at 15 m/s, covering 405 meters of distance.   
   
How long did it take to do this?

3. A very antiquated textbook moves at 15 m/s, covering 435 meters of distance.   
   
How long did it take to do this?

5. A recliner spends 30 seconds moving at 16 m/s.   
   
 How much distance was travelled?

7. A kindergartener's action figure moves at 50 m/s, covering 650 meters of distance.   
   
How long did it take to do this?

9. A basketball spends 22 seconds moving at 36 m/s.   
   
 How much distance was travelled?

## Section 2: Distance and Displacement

11. A barrel of monkeys goes on a walk, and makes the following movements:   
1. 13 meters left   
2. 9 meters right   
  
What is the total distance and net displacment of the barrel of monkeys?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

13. A crown jewel goes on a walk, and makes the following movements:   
1. 21 meters down   
2. 17 meters up   
3. 14 meters up   
4. 40 meters up   
  
What is the total distance and net displacment of the crown jewel?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

15. A bowl of soup goes on a walk, and makes the following movements:   
1. 78 meters East   
2. 9 meters East   
3. 26 meters East   
4. 52 meters East   
5. 75 meters East   
6. 9 meters East   
  
What is the total distance and net displacment of the bowl of soup?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

## Section 3: Average Speed

17. A literal horse travels 945 meters in 35 seconds,  
   
 then 495 meters in 15 seconds.  
   
 What is the average speed of the literal horse?

19. A golf ball travels 336 meters in 12 seconds,  
   
 then 476 meters in 17 seconds.  
   
 What is the average speed of the golf ball?

21. A magic mirror travels at 44 m/s for 21 seconds,  
   
 then 46 m/s over 920 meters.  
   
 What is the average speed of the magic mirror?

23. A Toyota Camry travels at 48 m/s for 37 seconds,  
   
 then 14 m/s over 602 meters.  
   
 What is the average speed of the Toyota Camry?

## Section 4: Average Velocity

25. A block of ice travels 540 meters to the left in 20 seconds,  
   
 then 266 meters to the right in 19 seconds.  
   
 What is the average velocity of the block of ice?

27. A tennis ball travels 989 meters to the right in 23 seconds,  
   
 then 238 meters to the left in 17 seconds.  
   
 What is the average velocity of the tennis ball?

29. A snare drum travels at 35 m/s to the right for 23 seconds,  
   
 then 34 m/s to the left over 374 meters.  
   
 What is the average velocity of the snare drum?

31. A crazy karen travels at 26 m/s to the right for 33 seconds,  
   
 then 12 m/s to the left over 288 meters.  
   
 What is the average velocity of the crazy karen?

## Section 5: Combined Constant

33. A barrel of monkeys travels at 44 m/s to the left for 27 seconds,  
   
 then 49 m/s to the right over 1813 meters.  
   
 What is the total distance travelled by the barrel of monkeys? What is the net displacement?  
   
 What is the average speed of the barrel of monkeys? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

35. A kindergartener's action figure travels at 10 m/s to the left for 32 seconds,  
   
 then 11 m/s to the right over 198 meters.  
   
 What is the total distance travelled by the kindergartener's action figure? What is the net displacement?  
   
 What is the average speed of the kindergartener's action figure? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

37. A crown jewel travels at 13 m/s to the right for 50 seconds,  
   
 then 23 m/s to the left for 943 meters,  
   
 and finally 2208 meters to the right in 46 seconds.  
   
 What is the total distance travelled by the crown jewel? What is the net displacement?  
   
 What is the average speed of the crown jewel? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

Constant Motion Quiz 3

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Section 1: Constant Speed

1. A recliner moves at 22 m/s, covering 1034 meters of distance.   
   
How long did it take to do this?

3. A broken treadmill moves 1312 meters over 41 seconds.   
   
How fast was the broken treadmill moving?

5. A television moves at 19 m/s, covering 475 meters of distance.   
   
How long did it take to do this?

7. A block of ice moves at 11 m/s, covering 550 meters of distance.   
   
How long did it take to do this?

9. A broken treadmill moves at 31 m/s, covering 1364 meters of distance.   
   
How long did it take to do this?

## Section 2: Distance and Displacement

11. A broken treadmill goes on a walk, and makes the following movements:   
1. 20 meters South   
2. 19 meters South   
  
What is the total distance and net displacment of the broken treadmill?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

13. A mischievious rapscalion goes on a walk, and makes the following movements:   
1. 40 meters down   
2. 17 meters down   
3. 6 meters down   
4. 36 meters up   
  
What is the total distance and net displacment of the mischievious rapscalion?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

15. A The Infamous Epi Demick goes on a walk, and makes the following movements:   
1. 38 meters right   
2. 13 meters right   
3. 35 meters left   
4. 71 meters left   
5. 52 meters left   
6. 47 meters right   
  
What is the total distance and net displacment of the The Infamous Epi Demick?

**Final Answers:**

|  |  |  |
| --- | --- | --- |
| **Total Distance meters** | **Net Displacement meters** | **Direction Say 'None' for zero** |
|  |  |  |

## Section 3: Average Speed

17. A stunt-seeking daredevil travels 492 meters in 41 seconds,  
   
 then 738 meters in 18 seconds.  
   
 What is the average speed of the stunt-seeking daredevil?

19. A golf ball travels 1131 meters in 39 seconds,  
   
 then 1548 meters in 43 seconds.  
   
 What is the average speed of the golf ball?

21. A boulder travels at 39 m/s for 17 seconds,  
   
 then 21 m/s over 777 meters.  
   
 What is the average speed of the boulder?

23. A physics student travels at 46 m/s for 10 seconds,  
   
 then 15 m/s over 225 meters.  
   
 What is the average speed of the physics student?

## Section 4: Average Velocity

25. A barrel of monkeys travels 1353 meters to the left in 41 seconds,  
   
 then 255 meters to the right in 15 seconds.  
   
 What is the average velocity of the barrel of monkeys?

27. A magic mirror travels 297 meters to the right in 11 seconds,  
   
 then 160 meters to the left in 10 seconds.  
   
 What is the average velocity of the magic mirror?

29. A football travels at 35 m/s to the right for 15 seconds,  
   
 then 49 m/s to the left over 1960 meters.  
   
 What is the average velocity of the football?

31. A statue travels at 34 m/s to the right for 40 seconds,  
   
 then 42 m/s to the left over 588 meters.  
   
 What is the average velocity of the statue?

## Section 5: Combined Constant

33. A whale travels at 21 m/s to the right for 36 seconds,  
   
 then 42 m/s to the left over 2100 meters.  
   
 What is the total distance travelled by the whale? What is the net displacement?  
   
 What is the average speed of the whale? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

35. A golf ball travels at 28 m/s to the right for 46 seconds,  
   
 then 11 m/s to the left over 154 meters.  
   
 What is the total distance travelled by the golf ball? What is the net displacement?  
   
 What is the average speed of the golf ball? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

37. A magic mirror travels at 47 m/s to the right for 28 seconds,  
   
 then 24 m/s to the left for 408 meters,  
   
 and finally 476 meters to the left in 17 seconds.  
   
 What is the total distance travelled by the magic mirror? What is the net displacement?  
   
 What is the average speed of the magic mirror? The average velocity?

**Final Answers:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Distance m** | **Net Displacement m** | **Average Speed m/s** | **Average Velocity m/s** |
|  |  |  |  |

Answer Key - All Versions

## Version 1

### Section 1: Constant Speed

1. 1372 Distance m

2. 1372 m,

3. 11 Speed m/s

4. 11 m/s,

5. 1890 Distance m

6. 1890 m,

7. 33 Time sec

8. 33 sec,

9. 13 Time sec

10. 13 sec,

### Section 2: Distance and Displacement

11. Total Distance (meters): 22 | Net Displacement (meters): 22 | Direction (Say 'None' for zero): East

12. 22 meters, 22 meters, East Say 'None' for zero,

13. Total Distance (meters): 87 | Net Displacement (meters): 19 | Direction (Say 'None' for zero): South

14. 87 meters, 19 meters, South Say 'None' for zero,

15. Total Distance (meters): 189 | Net Displacement (meters): 153 | Direction (Say 'None' for zero): North

16. 189 meters, 153 meters, North Say 'None' for zero,

### Section 3: Average Speed

17. 46.0 Average Speed m/s

18. 46.0 m/s,

19. 21.462 Average Speed m/s

20. 21.462 m/s,

21. 12.0 Average Speed m/s

22. 12.0 m/s,

23. 23.4 Average Speed m/s

24. 23.4 m/s,

### Section 4: Average Velocity

25. 6.824 Average Velocity m/s

26. 6.824 m/s,

27. 15.429 Average Velocity m/s

28. 15.429 m/s,

29. -2.545 Average Velocity m/s

30. -2.545 m/s,

31. -16.086 Average Velocity m/s

32. -16.086 m/s,

### Section 5: Combined Constant

33. Total Distance (m): 766 | Net Displacement (m): -146 | Average Speed (m/s): 13.927 | Average Velocity (m/s): -2.655

34. 766 m, -146 m, 13.927 m/s, -2.655 m/s,

35. Total Distance (m): 1521 | Net Displacement (m): -729 | Average Speed (m/s): 42.25 | Average Velocity (m/s): -20.25

36. 1521 m, -729 m, 42.25 m/s, -20.25 m/s,

37. Total Distance (m): 2024 | Net Displacement (m): 554 | Average Speed (m/s): 19.843 | Average Velocity (m/s): 5.431

38. 2024 m, 554 m, 19.843 m/s, 5.431 m/s,

## Version 2

### Section 1: Constant Speed

1. 27 Time sec

2. 27 sec,

3. 29 Time sec

4. 29 sec,

5. 480 Distance m

6. 480 m,

7. 13 Time sec

8. 13 sec,

9. 792 Distance m

10. 792 m,

### Section 2: Distance and Displacement

11. Total Distance (meters): 22 | Net Displacement (meters): 4 | Direction (Say 'None' for zero): left

12. 22 meters, 4 meters, left Say 'None' for zero,

13. Total Distance (meters): 92 | Net Displacement (meters): 50 | Direction (Say 'None' for zero): up

14. 92 meters, 50 meters, up Say 'None' for zero,

15. Total Distance (meters): 249 | Net Displacement (meters): 249 | Direction (Say 'None' for zero): East

16. 249 meters, 249 meters, East Say 'None' for zero,

### Section 3: Average Speed

17. 28.8 Average Speed m/s

18. 28.8 m/s,

19. 28.0 Average Speed m/s

20. 28.0 m/s,

21. 44.976 Average Speed m/s

22. 44.976 m/s,

23. 29.725 Average Speed m/s

24. 29.725 m/s,

### Section 4: Average Velocity

25. -7.026 Average Velocity m/s

26. -7.026 m/s,

27. 18.775 Average Velocity m/s

28. 18.775 m/s,

29. 12.676 Average Velocity m/s

30. 12.676 m/s,

31. 10.0 Average Velocity m/s

32. 10.0 m/s,

### Section 5: Combined Constant

33. Total Distance (m): 3001 | Net Displacement (m): 625 | Average Speed (m/s): 46.891 | Average Velocity (m/s): 9.766

34. 3001 m, 625 m, 46.891 m/s, 9.766 m/s,

35. Total Distance (m): 518 | Net Displacement (m): -122 | Average Speed (m/s): 10.36 | Average Velocity (m/s): -2.44

36. 518 m, -122 m, 10.36 m/s, -2.44 m/s,

37. Total Distance (m): 3801 | Net Displacement (m): 1915 | Average Speed (m/s): 27.745 | Average Velocity (m/s): 13.978

38. 3801 m, 1915 m, 27.745 m/s, 13.978 m/s,

## Version 3

### Section 1: Constant Speed

1. 47 Time sec

2. 47 sec,

3. 32 Speed m/s

4. 32 m/s,

5. 25 Time sec

6. 25 sec,

7. 50 Time sec

8. 50 sec,

9. 44 Time sec

10. 44 sec,

### Section 2: Distance and Displacement

11. Total Distance (meters): 39 | Net Displacement (meters): 39 | Direction (Say 'None' for zero): South

12. 39 meters, 39 meters, South Say 'None' for zero,

13. Total Distance (meters): 99 | Net Displacement (meters): 27 | Direction (Say 'None' for zero): down

14. 99 meters, 27 meters, down Say 'None' for zero,

15. Total Distance (meters): 256 | Net Displacement (meters): 60 | Direction (Say 'None' for zero): left

16. 256 meters, 60 meters, left Say 'None' for zero,

### Section 3: Average Speed

17. 20.847 Average Speed m/s

18. 20.847 m/s,

19. 32.671 Average Speed m/s

20. 32.671 m/s,

21. 26.667 Average Speed m/s

22. 26.667 m/s,

23. 27.4 Average Speed m/s

24. 27.4 m/s,

### Section 4: Average Velocity

25. -19.607 Average Velocity m/s

26. -19.607 m/s,

27. 6.524 Average Velocity m/s

28. 6.524 m/s,

29. -26.091 Average Velocity m/s

30. -26.091 m/s,

31. 14.296 Average Velocity m/s

32. 14.296 m/s,

### Section 5: Combined Constant

33. Total Distance (m): 2856 | Net Displacement (m): -1344 | Average Speed (m/s): 33.209 | Average Velocity (m/s): -15.628

34. 2856 m, -1344 m, 33.209 m/s, -15.628 m/s,

35. Total Distance (m): 1442 | Net Displacement (m): 1134 | Average Speed (m/s): 24.033 | Average Velocity (m/s): 18.9

36. 1442 m, 1134 m, 24.033 m/s, 18.9 m/s,

37. Total Distance (m): 2200 | Net Displacement (m): 432 | Average Speed (m/s): 35.484 | Average Velocity (m/s): 6.968

38. 2200 m, 432 m, 35.484 m/s, 6.968 m/s,