

How Far for A2.3

Regular one step or two step problems:	
11.2 m	1. A Pirate Ship accelerates uniformly from 1.80 m/s to 5.60 m/s with an acceleration of 1.25 m/s/s. What was its displacement?
8.28 m/s	2. A lemur going 3.45 m/s accelerates at 1.52 m/s/s for 3.18 s. What is its final velocity?
-8.85 m/s/s	3. A giant lizard stops in 5.85 m in 1.15 s. What was its acceleration?
12.4 s	4. A tuna going 2.35 m/s accelerates at 0.208 m/s/s covering a distance of 45.0 m. What time did it take?
7.27 m	5. A lemming speeds up from rest to 5.19 m/s in 2.80 s. What is its displacement during this time?
21.6 m/s	6. An accident scene detective knows that a car with a deceleration of -7.14 m/s/s was brought to rest in 32.8 m. What was the initial velocity?
-1.22 m/s/s	7. What is the acceleration of an ATV that goes from 12.0 m/s to 7.50 m/s in 3.68 s?
41.9 m	8. A XC runner accelerates uniformly for 8.20 s at 0.540 m/s/s having a final velocity of 7.32 m/s. What is their displacement during this time?
22.8 m/s	9. A racecar accelerates at 5.13 m/s/s for 3.35 s covering a distance of 105 m. What was its initial velocity?
21.9 m/s	10. A car avoiding an accident is brought to rest over a distance of 56.0 m in 5.12 s. What was its initial velocity?
-4690 m/s/s	11. A baseball going 38.0 m/s decelerates to rest over a distance of 0.154 m. What was its deceleration? (It's big)
-2.01 m/s/s	12. A car goes from 27.2 m/s to 14.7 m/s in 6.23 s. What is its acceleration?
458 m	13. A train going 45.0 m/s decelerates at -2.17 m/s/s for 17.9 s. What is its displacement during this time?
4.36 m/s	14. A hamster going 2.7 m/s accelerates uniformly for 6.52 s, covering a distance of 23.0 m. What was its final velocity? (it's riding a hamster scooter)
2.33 s	15. A car is going 15.0 m/s after having decelerated at -6.25 m/s/s over a distance of 52.0 m. What time did it take?
-25.1 m/s	16. A hot pocket accelerating at -9.81 m/s/s from rest falls downward -32.1 m. What is the final velocity?
18.2 m/s	17. A car accelerates uniformly for 8.70 s with a final velocity of 31.5 m/s over a distance of 216 m. What was its initial velocity?
2.39 s	18. A car that can brake at -8.92 m/s/s will take what time to decelerate from 33.1 m/s to 11.8 m/s?
81.6 m	19. A rollercoaster car going 8.60 m/s decelerates at -0.215 m/s/s for 11.0 s. What was its displacement during this time?
47.1 s	20. A space probe is going 615 m/s after having decelerated at -0.147 m/s/s over a distance of 29,100 m. What time did it take?
Two-Part Kinematics:	
39.2 m	21. A dragon accelerates from 1.13 m/s to 3.60 m/s in 4.13 seconds. Over what distance could it accelerate from rest to 6.85 m/s if it had the same acceleration?
4.98 s	22. A car accelerates uniformly from rest, covering 65.0 m in 5.62 seconds. What time would it take the same car to go from 8.90 m/s to 29.4 m/s if it had the same acceleration?
7.73 m/s	23. A runner covers 21.5 m accelerating uniformly from rest to 9.94 m/s. What was their speed when they had covered only 13.0 m?
2.84 s	24. A train decelerates from 35.0 m/s to 22.0 m/s in 42.0 seconds. What time did it take it to cover 98.0 meters from the beginning?
17.5 s	25. A car accelerates from rest to 23.0 m/s over a distance of 231 m. What time would it take it to accelerate from rest to 20.0 m/s if it accelerated at the same rate?