**Practice Reading *Velocity vs. Time* Graphs**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Graph 1** | **Graph 2** |
|  |  |  |
| 1. What is plotted on the x-axis? What are the units? |  |  |
|  |  |  |  |
| 2. | What is plotted on the y-axis? What are the units? |  |  |
|  |  |  |  |
| 3. | How much is each division on the x-axis? |  |  |
|  |  |  |  |
| 4. | How much is each division on the y-axis? |  |  |
|  |  |  |  |
| 5. | What is the Independent Variable? |  |  |
|  |  |  |  |
| 6. | What is the Dependent Variable? |  |  |
|  |  |  |  |
| 7. | What is the initial velocity (***vinitial***)? |  |  |
|  |  |  |  |
| 8. | What is the final velocity (***vfinal***)? |  |  |
|  |  |  |  |
| 9. | During what time interval is the velocity the highest? |  |  |
|  |  |  |  |
| 10. | What is the highest velocity on the graph? |  |  |
|  |  |  |  |
| 11. | During what time intervals is the person not moving? |  |  |
|  |  |  |  |
| 12. | During what times is the person speeding up? |  |  |
|  |  |  |  |
| 13. | During what times is the person slowing down? |  |  |
|  |  |  |  |
| 14. | During what time intervals does the person move with a |  |  |
|  | constant velocity? |  |  |
| 15. | What is the acceleration of the person from A-B? |  |  |
|  |  |  |  |
| 16. | What is the acceleration of the person from B-C? |  |  |
|  |  |  |  |
| 17. | What is the acceleration of the person from C-D? |  |  |
|  |  |  |  |
| 18. | What is the acceleration of the person from D-E? |  |  |
|  |  |  |  |
| 19. | What is the acceleration of the person from E-F? |  |  |
|  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Graph 1** |  |  |  |  |  |  |  | **Graph 2** |  |  |  |  |
|  | 40 |  |  |  |  | **Velocity vs time** |  | 350 |  | **Velocity vs time** |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 30 |  |  |  |  |  |  |  |  | 300 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 250 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Velocity (m/s)** | 20 |  |  |  |  |  |  |  | **Velocity (km/hr)** | 200 |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  | 150 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 100 |  |  |  |  |  |
| 0 |  |  |  |  |  |  |  | 50 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| -10 | 0 | 20 | 40 | 60 | 80 | 100 | 120 | 0 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -20 |  |  |  |  |  |  |  |  | -50 | 0 | 5 | 10 | 15 |  |
|  |  |  |  |  |  |  |  |  | -100 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -30 |  |  |  | **Time (sec)** |  |  |  |  | -150 |  | **Time (hr)** |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |



|  |  |  |  |
| --- | --- | --- | --- |
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|  |  |  |  |
| 2. | What is plotted on the y-axis? What are the units? |  |  |
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| 3. | How much is each division on the x-axis? |  |  |
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| 19. What is the acceleration of the person from E-F? |  |  |
|  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Graph 3** |  |  |  |  | **Graph 4** |  |  |  |  |  |
|  | 800 |  |  | **Velocity vs time** |  |  | 50 |  |  | **Velocity vs time** |  |  |
|  |  |  |  |  |  | 40 |  |  |  |  |
|  | 600 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 30 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **(m/min)** | 400 |  |  |  |  | **(m/sec)** | 20 |  |  |  |  |  |  |
|  |  |  |  |  | 10 |  |  |  |  |  |  |
| 200 |  |  |  |  | 0 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Velocity** | 0 |  |  |  |  | **Velocity** | -10 | 0 | 50 | 100 | 150 | 200 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 0 | 500 | 1000 | 1500 | -20 |  |  |  |  |  |  |
| -200 |  |  |  |  |  |  |  |
|  |  |  |  | -30 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | -400 |  |  |  |  |  | -40 |  |  |  |  |  |  |
|  |  |  |  |  |  | -50 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -600 |  |  | **Time (min)** |  |  | -60 |  |  | **time (s)** |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

