**Physics Unit 1 Test Review**

**Test Setup:**

Multiple Choice: 18 (3pt each ) Short Answers: 2 (5pt each) Problems: 5 (7pt each)

**Short Answers:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** |
| 0.0 s | 20.5 C | 21.3 C | 20.8 C | 21.0 C |
| 5.0 s | 21.0 C | 22.9 C | 21.4 C | 21.7 C |
| 10.0 s | 21.6 C | 24.1 C | 22.0 C | 22.3 C |
| 15.0 s | 22.2 C | 26.8 C | 22.7 C | 22.8 C |
| 20.0 s  | 23.0 C | 28.2 C | 23.2 C | 23.3 C |

1. Four trials of a chemical reaction were completed, and the change in temperature was measured every five seconds. Based on the data in the table above, answer the following questions:
2. Are there any unexpected or unusual results? If so explain your answer.
3. What is the general relationship between temperature and time?
4. Disregarding any trial(s) wit unexpected results, express this relationship in the form of a general formula.
5. Is Distance or displacement a vector quantity?

**Multiple Choice:**

1. Know a definition of the following branches of physics:
2. Thermodynamics
3. Mechanics
4. Quantum mechanics
5. Optics
6. Wave phenomena
7. What dimensions are most commonly used by physicists to derive additional measurements?
8. Define and know an example of:
9. Precision
10. Accuracy
11. Be able to convert units from standard form to scientific notation form
12. Three questions require you to read a chart and answer questions.
13. Know what parabolic motion is.
14. Know the definition of:
15. Vector ( also know an example)
16. Scalar (also know an example)
17. Resultant
18. Frame of reference
19. Be able to do vector addition, vector subtraction
20. Read over vector multiplication and division
21. Know the trigonomic equations ( these should be on your equation page)

**Problems: 5**

**Make sure you know how to do the physics problems: they count the most on the test…..All are vector problems**

1. **Vin Diesel is driving a car and it flies horizontally off the edge of a cliff at a velocity of 35 m/s. The canyon below is 75 m deep, how far from the edge of the cliff does Vin Diesel land ( remember ay=-g = -9.81)**



1. **Catdog walks 14 steps south then 25 steps east because they each had to take a turn. They then got confused and walked back to the starting point in a straight line ( boy was that a trick) How many steps did catdog take?**



1. **Ed Edd n Eddy decide to try their hand at driving boat they found. The boat is moving 15m/s relative to the water. If the boat is in a river with a current of 5 m/s, how long does it take the boat providing they survive to make a complete roundtrip of 500.0 M upstream followed by 500m downstream.**
2. **Vector A is 5.6 M in length and points along the positive y axis.. Vector B is 66 m in length and points along a direction 175 degrees counterclockwise from the positive x axis . What is the magnitude of the resultant when Vector A and B are added up?**