**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**# \_\_\_\_\_\_**

**Motion Practice Problems**

Use the space provided to make your calculations and show your work. Be sure to include UNITS. Record your answers in the answer column.

|  |  |  |
| --- | --- | --- |
| Task Card 1:  Given:  Equation:  Solution: | Task Card 2:  Given:  Equation:  Solution: | **ANSWERS**  **1. \_\_\_\_\_\_\_\_\_\_\_**  **2. \_\_\_\_\_\_\_\_\_\_\_**  **3. \_\_\_\_\_\_\_\_\_\_\_**  **4. \_\_\_\_\_\_\_\_\_\_\_**  **5. \_\_\_\_\_\_\_\_\_\_\_**  **6. \_\_\_\_\_\_\_\_\_\_\_**  **7. \_\_\_\_\_\_\_\_\_\_\_**  **8. \_\_\_\_\_\_\_\_\_\_\_** |
| Task Card 3:  Given:  Equation:  Solution: | Task Card 4:  Given:  Equation:  Solution: |
| Task Card 5:  Given:  Equation:  Solution: | Task Card 6:  Given:  Equation:  Solution: |
| Task Card 7:  Given:  Equation:  Solution: | Task Card 8:  Given:  Equation:  Solution: |

Task Cards

|  |  |
| --- | --- |
| Task Card 1  What is the average speed of a car that traveled 300.0 miles in 5.5 hours? | Task Card 2  How far can a person run in 15 minutes if he or she runs at an average speed of 16 km/hr? (HINT: Remember to convert minutes to hours.) |
| Task Card 3  Calculate the average speed (in km/hr) of a car stuck in traffic that drives 12 kilometers in 2 hours. | Task Card 4  A person in a kayak paddles down river at an average speed of 10 km/hr. After 3.25 hours, how far has she traveled? |
| Task Card 5  A parachute on a racing dragster opens and changes the speed of the car from 85 m/sec to 45 m/sec in a period of 4.5 seconds. What is the acceleration of the dragster? | Task Card 6  The Lamborghini Diablo sports car can accelerate from 0.0 km/hr to 99.2 km/hr in 4.0 seconds. What is the acceleration of this car? (Give your answer in units of km/hr/s) |
| Task Card 7  What is the average velocity of a hot air balloon that travels 500 km west in 3 hours and then picks up some wind to go 1000 km west in 3 hours? | Task Card 8  A soccer player kicks a ball 6.5 meters. How much time is needed for the ball to travel this distance if its velocity is 22 m/s, south? |