Uniform Motion: An object or person moves with the same speed (or the same average speed) for entire event.
Uniform Motion formula: $D = RT$
      D = distance (units of length)
      R = rate (units of distance per time)
      T = time (units of time)
Note: The units of distance in D and R must be the same, and the units of time in T and R must be the same.
If they are not, convert before writing the equation.

If more than one object is moving, the DRT formula applies separately to each object. A good way to keep this organized is a chart:

	D	R	T
1st object	1st distance	1st rate	1st time
2nd object	2nd distance	2nd rate	2nd time

To use a chart successfully:
Step 1: Fill in the numbers known from the problem.
Step 2: Look at the question, identify the unknown variable, and write it in the chart.
Step 3: Use the variable, numbers, and formula to fill in expressions for the rest of the chart.

Three basic set-ups:
- Two objects or people move in opposite directions. The distance between them is the SUM.
- Two objects or people move in the same direction. The distance between them is the DIFFERENCE.
- Two objects or people move the same distance in different times or directions. Set distances EQUAL.

A more advanced set-up:
- Total time is given. Solve formula for T to get $T = \dfrac{D}{R}$ to get two expressions for time. Add times.

1) Two boats leave port at the same time, one heading north at 35 knots (nautical miles per hour) and the other south at 47 knots. How long will it take them to be 738 nautical miles apart?
2) Sarah, driving the U-Haul, goes 50 mph. Ralph, driving the Civic, goes 70 mph. They leave at the same time. When will they be 60 miles apart?
3) Two groups on a canoe trip leave at different times. The first left at noon, the second half-an-hour later. The second group travels at an average speed which is 0.75 mph greater than the first group. At 2:30 PM, the second group caught up to the first group. How fast was each group paddling?
4) Granville and Preston are 535 miles apart. A car leaves Preston bound for Granville at 47 mph. At the same time, another car leaves for Granville bound for Preston at 60 mph. How long will it take them to meet?
5) Two crooks rob a bank and flee to the east at 66 mph. In 30 minutes, the police follow them in a helicopter, flying at 132 mph. How long will it take for the police to overtake the robbers?
6) Two cars leave a city on the same road, one driving 15 mph faster than the other. After 5 hours, the faster car stops for lunch. After 5 hours and 30 minutes, the slower car has not passed the other car and stops for lunch. The other car is still stopped for lunch. The two stopped cars are 54 miles apart. How fast was each car driving?
7) You drive from Atlanta to Durham, a distance of 390 miles. The average speed for the first part of the trip was 60 mph. During the second part of the trip, there was construction, so your average speed was only 45 mph. How long did you travel at 45 mph if you drove 3 hours longer at 60 mph than at 45 mph?
8) On the way to California, five friends drove 60 mph. On the way home, they took the same route at 70 mph. The round trip took 10 hours. How many miles is it to California? Round to the nearest tenth of a mile if necessary.