[06-02-07-T6] (REV 1)

Speed

■ **Work the following.**

[1] A car travels at a uniform speed of 60 miles per hour from place A to place B. It makes the return trip from place B to place A at a uniform speed of 30 miles per hour. The distance of A from B is 100 miles. What is the car's average speed for the round trip?

[2] Places A and B are 72 miles apart. Car 1 leaves place A at 1:00 PM and travels at a constant speed of 24 miles per hour toward place B. Car 2 leaves place B at 1:00 PM and travels at a constant speed of 36 miles per hour toward place A. How far apart are the two cars at 2:00 PM?

[3] Car 1 leaves place A at 1:00 PM and travels at a constant speed of 60 miles per hour toward place B. At 2:00, Car 1 has covered $\frac{1}{20}$ of the distance from A to B. Car 2 leaves place B at 3:00 PM and travels at a constant speed toward place A. At 4:00 PM, the cars are 950 miles apart. What is the speed of Car 2?

[4] Car 1 leaves place A at 1:00 PM and travels at a constant speed of 40 miles per hour toward place B. Later, Car 2 leaves place A and travels at a constant speed of 60 miles per hour toward place B. Car 2 catches up with Car 1 at 1:30 PM. At what time did Car 2 leave place A?

[5] Places A and B are 45 miles apart. Car 1 leaves place A at 1:00 PM and travels at a constant speed of 70 miles per hour toward place B. Car 2 leaves place B at 1:00 PM and travels at a constant speed of 60 miles per hour toward place A. How far apart are the two cars at 4:00 PM?