

Solve each Geometry problem:

- 1) In a triangle, the second angle measures four times the first. The measure of the third angle is 18° more than the second. Find the measure of the three angles.
- 2) In a triangle, one angle is 2 more than the first, while the other angle is 10 more than twice the first. Find the measure of the angles.
- 3) The length of a rectangle is 8 ft. longer than the width. If the perimeter is 88ft. Find the length and the width.
- 4) The width of a rectangle is 10 m. less than half of the length. If the perimeter is 52 meters find the length and width.
- 5) The width of a rectangle is 3 inches less than one-half the length. Find the length and width if the perimeter is 36 inches.

Solve each motion problem. Make a chart to organize your information.

- 6) Two bikers, Jose and Luis start at the same point at the same time and travel in opposite directions. Jose's speed is 5 mph more than Luis's, and after 3 hours the bikers are 63 miles apart. Find the speed of each biker.
- 7) Martha is running her first marathon. She can run at a rate of 528 ft/min. Ten minutes later her Mom starts the same course, running at a rate of 880 ft/min. How long until Mom catches up to Martha?
- 8) A 580 mile trip in a small plane took a total of 5 hours. The first 2 hours were flown at one rate and then a headwind started and slowed the plane by 10 mph for the rest of the trip. Find the rate for each part of the trip.
- 9) Two boats leave port at the same time, one going north the other south. The northbound boat travels 16 mph faster than the southbound boat. If the southbound boat is traveling 47 mph, how long until they are 1430 miles apart?
- 10) Two cyclists leave the city at the same time, one going east the other west. The westbound cyclist travels 4 mph faster than the eastbound cyclist. After 5 hours they are 200 miles apart. How fast is each cyclist travelling?
- 11) Two groups of friends took a canoe trip down a river. The first group left at noon. The second group left one-half hour later. The second group paddles at a speed 0.75 mph faster than the first group. At 2:30 p.m. the second group caught up to the first group. How fast was each group paddling?