

Name: _____

1. A plane which can fly 550 mph in still air flies for 3 hours against a wind and for 2 hours with the same wind. The total distance it covers is 2725 miles. Find the rate of the wind.

2. A flyer on a reconnaissance flight has 4 hours for a round trip. His plane can fly 200 mph in still air. He flies out from his base against a 20-mph wind and immediately returns to his base, flying with the same wind. How many hours did he take for his flight out?

3. Charlemagne trudged the 40 miles to the battle in 4 hours longer than it took Roland to travel 48 miles to the same battle. Roland rode a horse and traveled at twice the speed of Charlemagne. Find the rates and times of both.

4. Solve for x .

$$56x = -15x^2 - x^3$$

5. Solve for c .

$$\frac{m}{c} - x = \frac{p}{m}$$