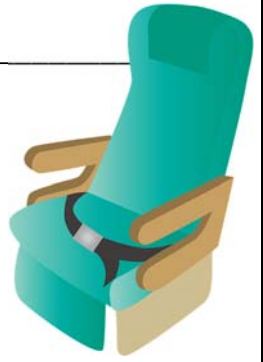


Name \_\_\_\_\_



## Airplane Cargo Mission (Real-World Applications)

SkyFreight Airlines is preparing for a major cargo mission! Each plane must load the correct amount of goods, balance its fuel, and track distances between airfields. Use your math and algebra skills to help the pilots and crew plan their flight safely and efficiently.

- 1) A cargo plane's total fuel capacity is 18,000 L. After filling  $x$  L, there are 4,200 L left to add. Find  $x$ .
- 2) Three identical containers hold a total cargo weight of 21,000 kg. Find the weight of one container.
- 3) A flight crew loaded  $x$  kg of medical supplies and 8,750 kg of equipment for a total of 14,000 kg. Find  $x$ .
- 4) A fuel tank on Plane A holds 4,500 L, which is 1,200 L less than the tank on Plane B. How much does Plane B's tank hold?
- 5) A plane flies 3 equal legs of its route, totaling 3,900 km. How long is each leg?
- 6) Each cargo crate measures  $2.5 \text{ m} \times 1.8 \text{ m} \times x \text{ m}$  high. If its total volume is  $9 \text{ m}^3$ , find  $x$ .
- 7) A pilot burns 2,400 L of fuel per hour. After  $x$  hours, 12,000 L are used. Find  $x$ .
- 8) A small jet carries 5 cargo boxes, each weighing  $x$  kg. The total cargo weight is 3,750 kg. Find  $x$ .
- 9) A plane takes off with 22,000 L of fuel and uses 18,500 L by the end of the trip. How many liters remain?
- 10) A cargo shipment includes 4,800 kg of electronics, 3,200 kg of clothes, and  $x$  kg of relief food for a total of 10,500 kg. Find  $x$ .
- 11) Plane C's route is 1,200 km longer than Plane D's route. Together, they cover 7,200 km. Find how far each flies.
- 12) Each of 8 planes carries  $x$  kg of cargo, plus a backup plane with 3,500 kg. The total shipment weighs 31,500 kg. Find  $x$ .