

Problem 49

2 German Shepherds eat 3 bags of food in 2 weeks. 3 Chihuahuas eat 2 bags of food in 3 weeks. Find the greatest number of whole days 6 bags of food will last 5 German Shepherds and 5 Chihuahuas.

Answer

8 days

Explanation

2 German Shepherds eat $\frac{3}{2}$ bags/week so 1 German Shepherd eats $\frac{3}{4}$ bags/week. 3 Chihuahuas eat $\frac{2}{3}$ bags/week so 1 Chihuahua eats $\frac{2}{9}$ bags/week. So 5 German Shepherds and 5 Chihuahuas eat $5(\frac{3}{4} + \frac{2}{9})$ bags/week. So, $6\text{bags}(\frac{36\text{weeks}}{175\text{bags}})(\frac{7\text{days}}{1\text{week}}) = 8.64$ days