



Problem Solver



320,000 Boston-area partygoers attended last year's Independence Day celebration. The partygoers left behind 40 tons of garbage. Given that a ton equals 2,000 pounds, how many pounds of garbage did the average partygoer leave behind?

$$1 \text{ ton} = 2,000 \text{ lbs}$$
$$40 \text{ tons} = 80,000 \text{ lbs}$$

There are **320,000** partygoers.
Pounds of garbage left per person:

$$\frac{80000}{320000} = \frac{1}{4} \text{ lbs per person}$$

Solve: $\frac{9}{16} \div \frac{3}{4}$

$$\frac{9}{16} \div \frac{3}{4}$$
$$= \frac{9}{16} \times \frac{4}{3} = \frac{36}{48} = \frac{3}{4}$$

Solve: $x = \frac{1}{2} \times \frac{1}{4}$

Write your solution for x as:
i) a decimal
ii) a percent

$$x = \frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

$$x = \frac{1}{8} = 0.125$$

$$x = \frac{1}{8} = 12.5\%$$