Exercise 1.25

How many pizzas are consumed each academic year by students at your school?

Solution

My school has about 1600 students, and about half of them (800 students) buy lunch at the cafeteria every day. About half of these students (400 students) order pizza for lunch every day.

An academic year consists of a fall and a spring semester, which have 18 weeks each. Consequently, one academic year has

$$1 \; \text{academic year} \times \frac{2 \; \text{semesters}}{1 \; \text{academic year}} \times \frac{18 \; \text{weeks}}{1 \; \text{semester}} \times \frac{7 \; \text{days}}{1 \; \text{week}} = 252 \; \text{days}.$$

Therefore, in one academic year,

$$252 \; \text{days} \times \frac{400 \; \text{pizzas}}{\text{day}} = 100\,800 \; \text{pizzas} \approx 10^5 \; \text{pizzas}$$

are consumed.