

**2004 Q1**

1. On a map, a 12-centimeter length represents 72 kilometers. How many kilometers does a 17-centimeter length represent?

(A) 6            (B) 102            (C) 204            (D) 864            (E) 1224

1. (B) If 12 centimeters represents 72 kilometers, then 1 centimeter represents 6 kilometers. So 17 centimeters represents  $17 \times 6 = 102$  kilometers.

**2009 Q2**

2. On average, for every 4 sports cars sold at the local car dealership, 7 sedans are sold. The dealership predicts that it will sell 28 sports cars next month. How many sedans does it expect to sell?

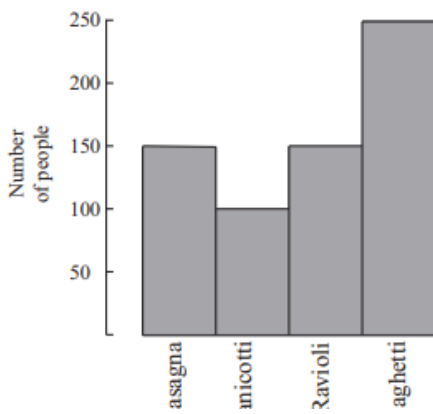
(A) 7    (B) 32    (C) 35    (D) 49    (E) 112

2. **Answer (D):** Let  $s$  = number of sedans. Set up a proportion:  $\frac{4}{7} = \frac{28}{s} = \frac{4(7)}{7(7)} = \frac{28}{49}$ . So the dealership expects to sell 49 sedans.

OR

Because selling 4 sports cars corresponds to selling 7 sedans, 28 sports cars =  $7(4 \text{ sports cars})$  corresponds to  $7(7 \text{ sedans}) = 49$  sedans.

## 2007 Q2



2. Six-hundred fifty students were surveyed about their pasta preferences. The choices were lasagna, manicotti, ravioli and spaghetti. The results of the survey are displayed in the bar graph. What is the ratio of the number of students who preferred spaghetti to the number of students who preferred manicotti?

(A)  $\frac{2}{5}$       (B)  $\frac{1}{2}$       (C)  $\frac{5}{4}$       (D)  $\frac{5}{3}$       (E)  $\frac{5}{2}$

2. (E) The ratio of the number of students who preferred spaghetti to the number of students who preferred manicotti is  $\frac{250}{100} = \frac{5}{2}$ .