Brief Article

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Chapter 1

Why you should use data science?

Solution 1.6-1

All of the choices is the correct answer.

Solution 1.6-2

The level of measurement of marital statis is nominal (C).

Solution 1.6-3

The level of measurement of marital status is interval-ratio (B).

Solution 1.6-4

The number of reported robberies in June 2014 is Kalamazoo County is continuous variable.

Chapter 2

Dataset Descriptive Information

Solution 2.5-1

$$(2.)p = \frac{250 - 195}{250} = 0.22 \tag{2.1}$$

Solution 2.5-2

$$(3.)ratio = \frac{195}{250 - 195} = 3.55 \tag{2.2}$$

Solution 2.5-3

$$(2.)rate = \frac{13}{25000} \times 100000 = 52 \tag{2.3}$$

Solution 2.5-4

$$(1.)PC = \frac{(83 - 89)}{89} \times 100 = -6.7\% \tag{2.4}$$

Solution 2.5-5

1. The percentage of nurses who are female is

$$p_f = \frac{116}{315} \times 100 = 36.8\% \tag{2.5}$$

2. the proportion of orderlies who are males is

$$p_m = \frac{151}{415} = 0.367 \tag{2.6}$$

- 3. the ratio of females to males is ${\rm ratio} = 18 {\rm \ females \ docs \ to \ 83 \ males \ docs \ or \ approximately \ 1 \ female \ doc \ to \ 5 \ males \ docs$
- 4. percentage of females on the staff is

$$p_f = \frac{315}{(315 + 412)} \times 100 = 43.3\% \tag{2.7}$$

Solution 2.5-6