12-3 Measures of Central Tendency and Dispersion

The data below represent the pulse rates of different people who visited the doctor on a particular day. Use these numbers to answer the questions below. Show your work/logic clearly!

76, 72, 88, 60, 72, 68, 80, 64, 68, 68, 80, 76

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1. Find the mean of the data. Show your work!

$$\frac{76 + 72 + 88 + 60 + 72 + 68 + 80 + 64 + 68 + 68 + 80 + 76}{12}$$

$$= \frac{872}{12} = 72.\overline{66}$$

$$\boxed{\bar{x} = 72.7}$$

2

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2. Find the median of the data. Show your work!

60, 64, 68, 68, 68, 72 | 72, 76, 76, 80, 80, 88

med

$$\frac{72+72}{2} = 72$$

$$\boxed{med = 72}$$

2

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3. Find the mode(s) of the data.

mode = $\boxed{68}$

1

4. Find the range of the data. Show your work

$$88 - 60 = 28$$

$$\boxed{range = 28}$$

2

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5. Graham is a salesman. His total sales on the first four days of the week were $1280, $1125, $965, and $1210. How much must he have in sales on the 5th day to average $1150 for the week?

$$\frac{1280 + 1125 + 965 + 1210 + x}{5} = 1150$$

$$\begin{aligned} 4580 + x &= 5750 \\ -4580 & \quad -4580 \end{aligned}$$

$$x = 1170$$

Graham must have $1170 in sales on the 5th day

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