$$= \frac{10+12+7+6+3+15+21+4+9+5+13+19}{12}$$

$$= \frac{124}{12} = 10.33$$

ii) standard deviation

$$S^2 = \frac{\sum x_i^2 - n(\bar{x})^2}{n-1}$$

$$\sum x_i^2 = 10^2+12^2+7^2+6^2+3^2+15^2+21^2+4^2+9^2 + 5^2+13^2+19^2$$

$$= 100+144+49+36+9+225+441 + 16+81+25+169+361$$

$$= 1,656$$

$$n(\bar{x})^2 = 12(10.33)^2 = 1280.5068$$

$$\Rightarrow S^2 = \frac{1656-1280.5068}{11}$$

$$= \frac{375.4932}{11} = 34.136$$

$$S = 5.84$$

median: sort the data.

3 4 5 6 7 9 10 12 13 15 19 21

$\frac{9+10}{2} = 9.5$

3 4 5 6 7 9 10 12 13 15 19 21

$\frac{5+6}{2} = 5.5$ 1st Q

$\frac{13+15}{2} = 14$ 3rd Q.