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| Year  8 | Mathematics Practice Test – Statistical Measures | Calculator Practice Test |
|  | Name |  |

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| 1. | To collect data about year 8 students in a school with five year 8 classes, Jason interviews every year 8 students and Karen distributes a printed survey to the students in her year 8 maths class. Which is true?  Jason is using a sample and Karen is using a census.  Karen is using a sample and Jason is using a census.  Both Jason and Karen are using a census.  Both Jason and Karen are using a sample. |
| 2. | The ages of 12 players on the Hillston basketball team are listed below.  16, 17, 23, 25, 28, 15, 35, 16, 32, 19, 29, 45  Find the mean of the ages. |
| 3. | Kaylah collects data on the family size of a sample of 14 students. They are listed below.  6, 5, 1, 2, 3, 5, 5, 4, 7, 2, 3, 1, 2, 4  The median of the data is    2 3 3.5 4 |
| 4. | The results of 8 friends on a Science Test are given below.  72, 45, 89, 54, 23, 66, 66, 90  The range of their marks is:  18 67 45 66 |
| 5. | Laith collects data on the shirt sizes of a sample of 20 students. They are listed below.  46, 42, 44, 38, 40, 44, 36, 38, 40, 42  40, 38, 42, 38, 40, 38, 40, 36, 44, 38  The modal size is:  36 38 40 42 |
| 6. | Marcus compares the number of points scored by two rugby league teams over 5 rounds.  Tigers 43, 20, 15, 34, 21  Sharks 32, 24, 23, 37, 23  Which is true?  The Tigers have a greater mean, but the Sharks have a greater range.  The Sharks have a greater mean, but the Tigers have a greater range.  The Tigers have a greater mean and a greater range.  The Sharks have a greater mean and a greater range. |
| 7. | The weekly mobile phone costs of 7 friends were:  $16, $45, $23, $45, $24, $23, $45  Which is correct?  The median is 21 more than the mode.  The mode is 21 more than the median.  The median is 22 more than the mode.  The mode is 22 more than the median. |
| 8. | The mean of Terry’s first five Test marks is 45. What mark must he score on the sixth Test to raise his mean over the six tests to 50? |
| 9. | Jacquie scored the following number of goals in six games, but one score has been smudged. If the median of the six scores was 12.5, what is the smudged score?  16, 8, 9, , 10, 23 |
|  | Questions 10 to 14 refer to the frequency table below which gives the marks on a quiz out of 12.   |  |  |  | | --- | --- | --- | | Score | Frequency | fx | | (x) | (f) |  | | 7 | 1 |  | | 8 | 4 |  | | 9 | 5 | **B** | | 10 | 7 |  | | 11 | 6 |  | | 12 | 5 |  | |  | Σ f = **A** | Σ fx = **C** | |
| 10. | The mode of the marks is :  11 9 10 5 |
| 11. | The value of **A**  is :  6 28 57 12 |
| 12. | The value of **B**  is :  45 95 14 59 |
| 13. | The value of **C**  is :  12 28 85 280 |
| 14 | The mean of the marks is: |
|  | Questions 15 to 18 refer to the stem and leaf plot below which gives the percentage of fibre in the diets of 20 people.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 0 | 9 |  |  |  |  | | 1 | 5 | 7 |  |  |  | | 2 | 5 | 7 |  |  |  | | 3 | 3 | 5 | 7 | 8 |  | | 4 | 1 | 1 | 1 | 9 | 9 | | 5 | 4 | 6 | 8 |  |  | | 6 | 7 | 9 |  |  |  | | 7 | 4 |  |  |  |  | |
| 15. | The modal percentage of fibre is :  1 41 37 49 |
| 16. | The mean percentage of fibre (to the nearest percent) is :  42 41 6 43 |
| 17. | Write down the range of the percentages.  Range = |
| 18 | Write down the median of the percentages.  Median = |
|  | Questions 19 to 22 refer to the dot plot below which gives the number of tries a Rugby team scored in 25 games.   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | o |  |  |  |  |  |  | |  | o |  | o | o | o |  |  |  |  | |  | o | o | o | o | o |  |  |  |  | |  | o | o | o | o | o |  | o |  |  | | o | o | o | o | o | o | o | o |  | o | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 19. | The modal number of tries is :  1 3 4 9 |
| 20. | The mean number of tries is :  2.5 3.75 3.375 3.6 |
| 21. | Write down the range of the number of tries.  Range = |
| 22 | Write down the median of the number of tries.  Median = |
|  | Questions 23 to 25 refer to the frequency histogram and polygon which shows the Test marks of 40 students. |
| 23. | The mode of the marks is :  4 5 9 10 |
| 24. | The range of the marks is :  10 9 8 7 |
| 25. | Calculate the mean of the marks.  Mean = |