

# Year 8 Mathematics Statistics Unit Test

Name: \_\_\_\_\_

*Instructions:*

- Answer all questions on this paper.
- Calculators may be used.
- Marks will not be awarded for untidy work.
- Show any necessary working.

1. [4] For these scores:

- Rearrange the scores from lowest to highest (ascending order).
- State the mode.
- State the median
- Calculate the mean.

31, 35, 29, 33, 31

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. [8] For this table:

- Complete the *f.x.* and cumulative frequency (*c.f.*) columns.
- Calculate the mean.
- State the range.
- State the mode.

i)

Score ( <i>x</i> )	Frequency ( <i>f</i> )	<i>f.x.</i>	<i>c.f.</i>
15	5		
16	6		
17	7		
18	4		
19	2		
20	1		

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

3. [12] During an inter-school tennis competition, a total of 30 sets of tennis were played. The number of aces served in each set was recorded:

0      3      1      4      2      0      1      0      2      3  
 5      1      1      1      0      1      3      2      3      1  
 1      0      1      0      1      4      2      0      1      3

i) Complete the frequency distribution table below:

Score ( $x$ )	Tally	Frequency ( $f$ )	$f.x$	$c.f.$

ii) What is the range of these scores? \_\_\_\_\_

iii) Calculate the mean number of aces per set? \_\_\_\_\_  
 \_\_\_\_\_

iv) If another score of 2 were added, would the mode of median scores change?

v) [5] Draw a frequency histogram and polygon based on the above information.



4. [6] The points scored by two of the leading players in a basketball competition of 15 games are:

Player A					Player B				
12	17	13	22	11	10	18	5	24	30
19	28	21	31	15	7	27	8	12	29
20	18	22	27	19	6	9	14	28	26

i) calculate the mean score for each player.

Player A

---

---

---

Player B

---

---

---

ii) What is the range of scores for each player?

Player A

---

Player B

---

iii) Which player would you say is better? WHY? \_\_\_\_\_

---

---

---