Teacher Name: Ambreen Badar Class: 8 Subject: Mathematics

**SUMMER VACATION HOME WORK**

**Q1: Simplify **

**Q2: Simplify **

**Q3: Simplify **

**Q4: Simplify **

**Q5: Factorise  6*w* – 8*y***

**Q6: Expand and simplify  (3*a* – 2*b*)(2*a* + *b*)**

**Q7: Factorise**

1. ***y*2 - 9**
2. **49*k*2 - *m*2**
3. **5*w*2 - 20*t*2**

**Q8: Factorise  6*h*2 - 23*h* - 18**

**Q9: Factorise  2*n*2 + 5*n* + 3**

**Q10: (a) Write down the next two term in the sequence 12, 11, 9, 6,……..**

 **(b) Write down an expression in terms of n, for the nth term in the sequence**

 **4, 9, 16, 25, ……….**

**Q11: Copy the following statements and fill in the blank spaces:**

 **83 = 10 × 8 + 3**

 **72 = 10 × \_\_\_\_ + \_\_\_\_**

 **46 = \_\_\_\_\_ × \_\_\_\_\_\_ + \_\_\_\_\_\_**

**Q12: The sequence of numbers 1. 5, 11, 19, 29, ……..can also be expressed in the form 12+0, 22+1,**

 **32+2, 42+3, …..**

1. **Express the 5th term of the same form.**
2. **Write down in terms of n, a formula for nth term.**
3. **Calculate the value of the 100th term of the sequence.**

**Q13: (a) The nth term of a sequence of a number is n2 + 3. Write down the first four terms of the**

 **sequence.**

 **(b) the first four terms of another sequence are 0, 3, 8, 15, …….Write down an expression in**

 **terms of n, for the nth term of the sequence.**