**M3 HW 3 – ARITHMETIC SERIES** NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. In an arithmetic series, $a\_{1}=7 and a\_{12}=29.$ 2. In an arithmetic series, $a\_{1}=-12 and a\_{14}=54.$

 Find $s\_{12}.$ Find $s\_{14}.$

3. What is the sum of the series: 4. Find the sum of the series:

 $3+5+7+9+…+57$ $1-3-7-11…-51$

5. In an arithmetic series, find the sum of the first 72 terms 6. In an arithmetic series, find the sum of the first 10

 If the first term is 5 and the common difference is $\frac{1}{3}$. Terms if the first term is 3 and d = 4.

7. If $a\_{6}=-5 and a\_{10}=7$ in an arithmetic series, find the 8. If $a\_{5}=16 and a\_{11}=4$ in an arithmetic series, find

 Sum of the first 12 terms. The sum of the first 20 terms.

9. Find the sum of the integers 10 through 53. 10. Find the sum of the even integers $-14$ through 22.

11. How many terms of the sequence must be added to 12. How many terms of the series must be added to

 Get a sum of 200? Get a sum of $-2070$?

 $-10-7-4…$ $18+12+6+…$