



## Arithmetic Sequences and Series: Arithmetic Series

Find  $\sum_{k=3}^9 (3k + 5)$ .

Select your answer from the drop-down menu.

$\sum_{k=3}^9 (3k + 5) =$

Abdulkader Amro

For the arithmetic series,  $a_1 = 96$ ,  $a_n = 18$ , and  $S_n = 399$ . What are the first four terms of this arithmetic series?

Drag and drop your answer to correctly complete the sentence.

The first four terms of the given arithmetic series are .

Yousef is looking to start exercising and wants to increase the number of push-ups he can do. He starts out the first day by doing 10 push-ups, the second day he does 12 push-ups, the third day he does 14 push-ups, and so on every day until he can do 100 push-ups. How many push-ups will Yousef do in total?

Select your answer from the drop-down menu.

Yousef will do  push-ups in total.

A rental car company charges a daily fee of AED 60. For every additional day the car is used, AED 15 is added onto the daily fee. For example, the first day would cost AED 60, the second day would cost AED 75, the third day would cost AED 90, and so on. If the daily fee equals AED 195 on the day that the car is returned, what is the total cost of the rental car?

Enter your answer in the space provided.

The total cost of the rental car is AED .



The number of blocks that make up the face of the pyramid shown in the distance can be represented with an arithmetic sequence. The top row has 2 blocks, the row underneath has 4 blocks, the row underneath has 6 blocks, and the number of



blocks in each row follow this pattern all the way to the base layer of 256 blocks. How many blocks make up the face in all?

*Enter your answer in the space provided.*

The face of this pyramid is made up of  blocks.

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Find  $\sum_{k=1}^{10} (-9k + 65)$ .

*Enter your answer in the space provided.*

$\sum_{k=1}^{10} (-9k + 65) =$

Find  $\sum_{k=2}^{11} (5k - 13)$ .

*Enter your answer in the space provided.*

$\sum_{k=2}^{11} (5k - 13) =$