

Use the given information to find the sum of this arithmetic series.

$$a_6 = 92$$

$$a_{12} = 158$$

Last Term:

$$a_n = 312$$

$$a_1 = 92 - 5(11) = 37$$

$$S_n = \frac{n}{2}(a_1 + a_n)$$

$$S_n = \frac{26}{2}(37 + 312)$$

$$S_{26} = 4537$$

$$d = \frac{158 - 92}{6}$$

$$d = 11$$

$$a_n = 37 + 11(n-1)$$

$$312 = 37 + 11(n-1)$$

$$26 = n$$

Use the given information to find the number of terms in the arithmetic series.

$$a_1 = 29$$

$$a_n = 299$$

$$S_n = 5084$$

$$S_n = \frac{n}{2}(a_1 + a_n)$$

$$5084 = \frac{n}{2}(29 + 299)$$

$$\frac{5084}{328} = \frac{n}{2}(328)$$

$$2 \cdot 15.5 = \frac{n}{2} \cdot 2$$

$$n = 31$$

There are 31 terms