

$$a_3 = 7 \quad \overbrace{+r} \quad \overbrace{+r} \quad \overbrace{+r} \quad a_6 = 19$$

$$a_{101}$$

$$3r = 12$$

$$\boxed{r = 4}$$

$$Q_1 = -\underline{1}$$

$$Q_{101} = Q_1 + 100r = -1 + 400 = 399$$

Suma aritmetycznego ciągu arytmetycznego

$(1, 2, \dots, 100)$

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

$$S_{100} = \frac{1 + 100}{2} \cdot \cancel{100} = 50 \cdot 101 = 5050$$

$$(5, 10, 15, \dots, 95)$$

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

$$95 = a_1 + (n-1) \cdot r = 5 + (n-1) \cdot 5$$

$$95 = 5 + 5n - 5$$

$$95 = 5n \quad / : 5 \quad n = 19$$

$$S_{19} = \frac{5 + 95}{2} \cdot 19$$



$$9 = 7 \cdot 1 + 2$$

$$16 = 7 \cdot 2 + 2$$

$$2 = 7 \cdot 0 + 2$$

$$(2, 9, 16, \dots)$$

$$a_{20} = 2 + 19 \cdot 7 = 135$$

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

$$S_{20} = \frac{2 + 135}{2} \cdot 20 = 1370$$