

Questions for self-control

1. Give the benefits of spreadsheets to classical programming languages and shortcomings.
2. Set in the Excel formula to calculate the area of a circle.
3. Describe the types of diagrams that can be built into Excel.
4. Give the algorithm a cell reference cell on another sheet.
5. Give an algorithm name change chart (color, type, signature data).
6. Give an algorithm for constructing several graphs in one chart.
7. Describe cell formats used in Excel.
8. Give an algorithm for data from a text file in Excel.

Tasks for independent work

Build a table and diagram functions for $q = q(x)$, $y = y(x)$.

$$1. y = 26.8 \cdot N \cdot \frac{\sin(\pi - 2 \cdot \frac{\pi}{3})}{c \cdot q \cdot k^c} + 3, \quad x = 0 \dots 2 \cdot \pi, \quad N = 18.2, \quad k = 1.6, \quad c = 3$$

$$q = \begin{cases} q = 16, & \text{if } \delta = 0 \dots \pi, \quad 0 \leq \delta < \pi \\ q = 2 \cdot \cos x & \text{if } \delta = \pi \dots 2 \cdot \pi, \quad \pi \leq \delta \leq 2 \cdot \pi \end{cases}$$

$$2. y = \frac{\sin(x - 2 \cdot \frac{\pi}{3}) - 0.16 \cdot c}{q^k \cdot G} + 1 \quad x = 0 \dots 2 \cdot \pi, \quad k = 2, \quad G = 2 \cdot \pi, \quad c = 1.2$$

$$q = \begin{cases} 0.138 \cdot c - 12, & \text{if } x = 0 \dots 2, \quad 0 \leq x < 2 \\ 12.1 \cdot k - 4, & \text{if } x = 2 \dots \pi, \quad 2 \leq x \leq 2 \cdot \pi \end{cases}$$

$$3. y = \frac{2.16 \cdot \cos(x - 2 \cdot \frac{\pi}{3}) - 32.1 \cdot c}{25 \cdot q \cdot G^c} + 4 \quad x = 0 \dots 2 \cdot \pi, \quad c = 0.12, \quad G = 124$$

$$q = \begin{cases} 12.65 \cdot c - 0.143 & \text{if } x = 0 \dots 1, \quad 0 \leq x < 1 \\ 0.36 \cdot G + 18.1 & \text{if } x = 1 \dots 2 \cdot \pi, \quad 1 \leq x \leq 2 \cdot \pi \end{cases}$$

$$4. y = \frac{\sqrt{G \cdot \frac{2\pi}{3}} + \sin(x - 2 \cdot \frac{\pi}{3})}{12.6 \cdot q \cdot G^c} + 12.2, \quad x = 0 \dots 2 \cdot \pi, \quad G = 118.1, \quad c = 0.33$$

$$q = \begin{cases} c + 1.1, & 0 \leq x < 1.1 \\ q = 0.625 + 14.2 \cdot \pi \cdot c, & 1.1 \leq x \leq 2 \cdot \pi \end{cases}$$

$$5. y = \frac{615 \cdot \sqrt{G - \sin(x - 2\pi/3)}}{16.2 \cdot q \cdot c \cdot (G - 3)} + 12, x = 0 \dots 2 \cdot \pi, G = 76.2, c = 11$$

$$q = \begin{cases} q = \cos(x), & 0 \leq x < \pi/2 \\ q = 2 \cdot \cos(x), & \pi/2 \leq x \leq 2 \cdot \pi \end{cases}$$

$$6. y = \frac{\sqrt{G - \sin(x - 2 \cdot \pi/3)}}{q \cdot c \cdot (G - 3)} + 6.12 \cdot q, x = 0 \dots 2 \cdot \pi, g = 76.1, c = 10$$

$$q = \begin{cases} q = \cos(x), & 0 \leq x < \pi/2 \\ q = 2, & \pi/2 \leq x \leq 2 \cdot \pi \end{cases}$$

$$7. y = 28.2 \cdot k \cdot \frac{\sin(x - 2 \cdot \pi/3)}{6 \cdot q \cdot k^c} + 12, k = 18.2, c = 3, x = 0 \dots 2 \cdot \pi$$

$$q = \begin{cases} 0.138 \cdot c - 12, & 0 \leq x < \pi \\ 12.1 \cdot k - 4, & \pi \leq x \leq 2 \cdot \pi \end{cases}$$

$$8. y = 18.6 \cdot \sin(x - 2 \cdot \pi/3) + \frac{k}{6 \cdot q \cdot k^c}, k = 18.2, c = 3, x = 0 \dots 2 \cdot \pi$$

$$q = \begin{cases} 0.2 \cdot c - 6, & 0 \leq x < \pi \\ 11 \cdot k - 4.2, & \pi \leq x \leq 2 \cdot \pi \end{cases}$$

$$9. y = \frac{2.16 \cdot \cos(x - 2 \cdot \pi/3)}{25 \cdot q} - \frac{3.12 \cdot c}{G^c}, c = 0.12, G = 124, x = 0 \dots 2 \cdot \pi$$

$$q = \begin{cases} 6.54 \cdot c - 0.143, & 0 \leq x < 1 \\ 0.25 \cdot G - 16, & 1 \leq x \leq 2 \cdot \pi \end{cases}$$

$$10. y = \frac{\sqrt{G \cdot 2 \cdot \pi/3} + \cos(x - 2 \cdot \pi/3)}{12.2 \cdot q \cdot G^c} + 12.1, x = 0 \dots 2 \cdot \pi, G = 118.1, c = 0.33$$