

**Subject: Information Technology in
School or University.**

Group: SMA-15-1(CYA-15-1)

**Performed: Alekseev Sergey and Albert
Yaman**

Computer in office



Computer classroom



Search in Internet from computer



Online book store

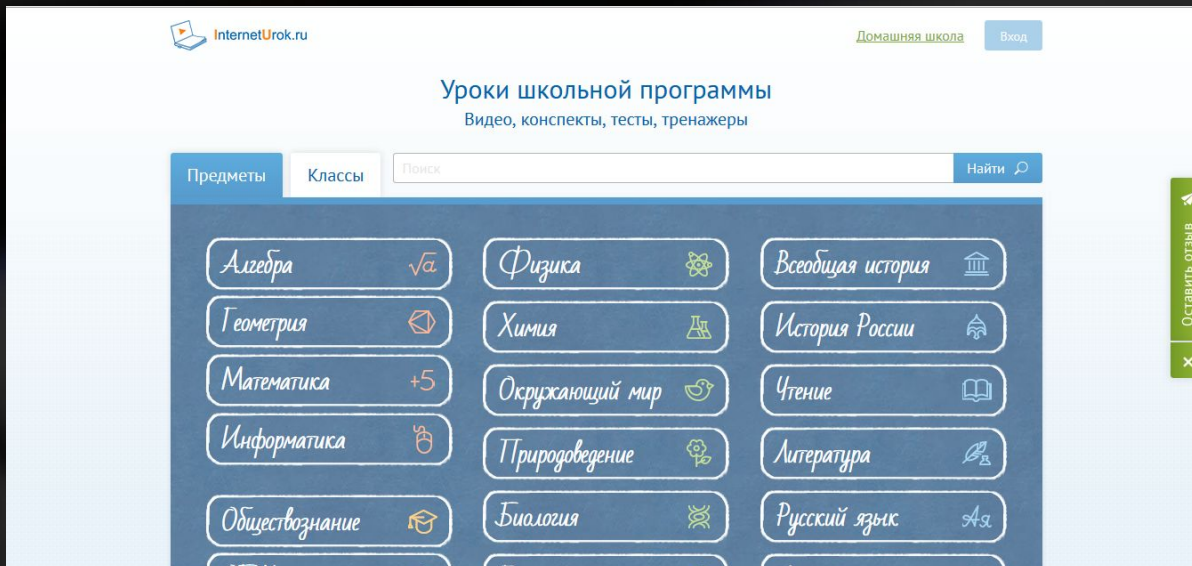
The screenshot shows a website for an online book store. At the top, there is a navigation menu with links for Titles, New Arrivals, Genres, Out of Print, Sale, and Antique. Below the menu is a large banner with the text "online BOOK STORE" and "Check Out Our Featured Books!". To the left of the banner is a stack of colorful books. The featured books section displays four book covers with their prices and "more" links: "Asian Brand Strategy" (\$24.99), "LEAD-FREE ELECTRONICS" (\$19.99), "THE PERFECT ENJOYMENT" (\$15.99), and a book with a red apple cover (\$29.99). Below the featured books is a "Shop" section with a "Welcome to Our Website" message and a "Shop By Genre" dropdown menu. A search bar with a "Search" button and a "Go" button is also present. The bottom section is titled "SHOP - The Best Book Series" and features four book covers with their prices and "Details" links: "THE BEST 30-MINUTE RECIPE" (\$19.99), "THE NEW BEST RECIPE" (\$19.99), "THE BEST 30-MINUTE RECIPE" (\$19.99), and "Better Homes & Gardens Cook Book" (\$19.99).

Online store book



Store book

Online video and articles from learning

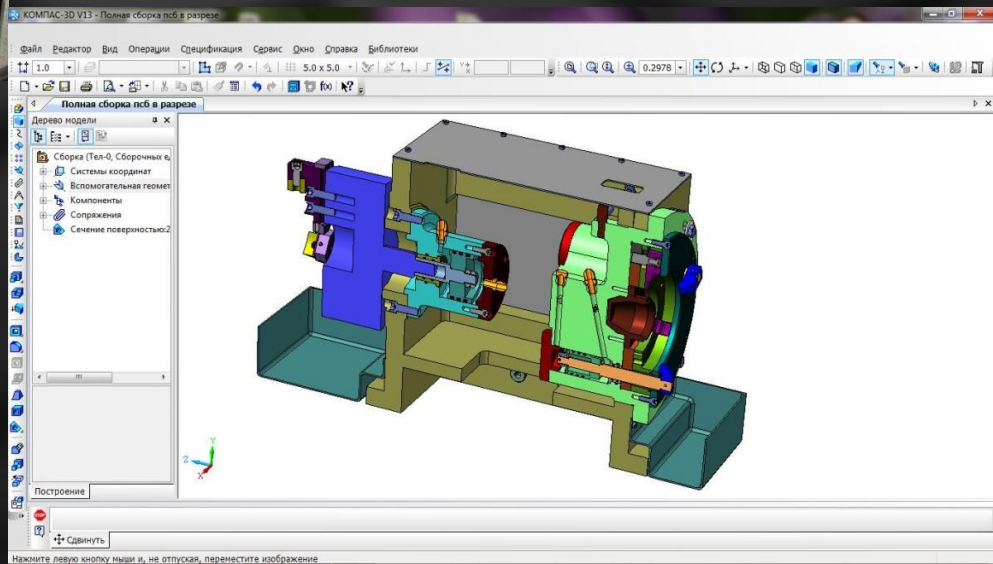


Exercise online

Video course



Specialized education

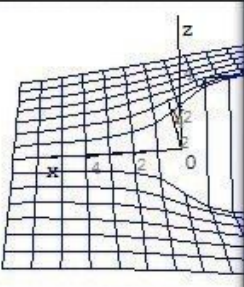


Exercise math on computer

SMath Studio - [Page1]

File Edit View Insert Calculation Tools Pages Help

10 $f(x)$



Reference book

Home Back Copy

Properties of arithmetic roots

- $\sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$
- $\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$
- $\sqrt[n]{a^m} = (\sqrt[n]{a})^m = a^{\frac{m}{n}}$
- $\sqrt[m]{\sqrt[n]{a}} = \sqrt[m \cdot n]{a} = a^{\frac{1}{m \cdot n}}$
- $\sqrt[m]{a} \cdot \sqrt[n]{a} = \sqrt[m \cdot n]{a^{\frac{m+n}{1}}} = a^{\frac{m+n}{m \cdot n}}$
- $\sqrt[2 \cdot n + 1]{a^{2 \cdot n + 1}} = a$

Arithmetic

Matrices

Boolean

Functions

Plot

Programming

Symbols (α - ω)

Symbols (Λ - Ω)

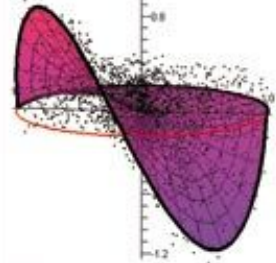
Calculation: 0,003 sec.

Single 11

File Edit View Insert Calculation Tools Pages Help

10 $f(x)$

Circular Heat Sink (Irregular Loading)



Analytical Model

The model assumes a 2D disk and uses the Laplace heat equation for polar coordinates

$$\frac{\partial^2}{\partial r^2} T(r, \theta) + \frac{1}{r} \frac{\partial}{\partial r} T(r, \theta) + \frac{1}{r^2} \frac{\partial^2}{\partial \theta^2} T(r, \theta) = 0$$

Where r and θ define the position on the disk. The variable $T(r, \theta)$ is temperature in Kelvin. The solution uses a Fourier series expansion. For 5 terms, it is:

$$\frac{1}{2a^2} T_0 + \frac{1}{a^2} \sum_{n=1}^5 \frac{r^{2n-1}}{4^n} \cos(2n\theta - \theta) = 0$$

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Comparison of solution accuracy for different series order

$N=1, 2, 5, 20$

$\theta = \frac{\pi}{4}$

$\theta = \frac{\pi}{4}$

Validation

| Series order | r | $T(r, \theta)$ |
|--------------|--------|----------------|
| 1 | 0.5000 | 3.42 |
| 2 | 0.5000 | 3.42 |
| 5 | 0.5000 | 3.42 |
| 20 | 0.5000 | 3.42 |

Distance learning



Wireless network WI-FI



Social network

