

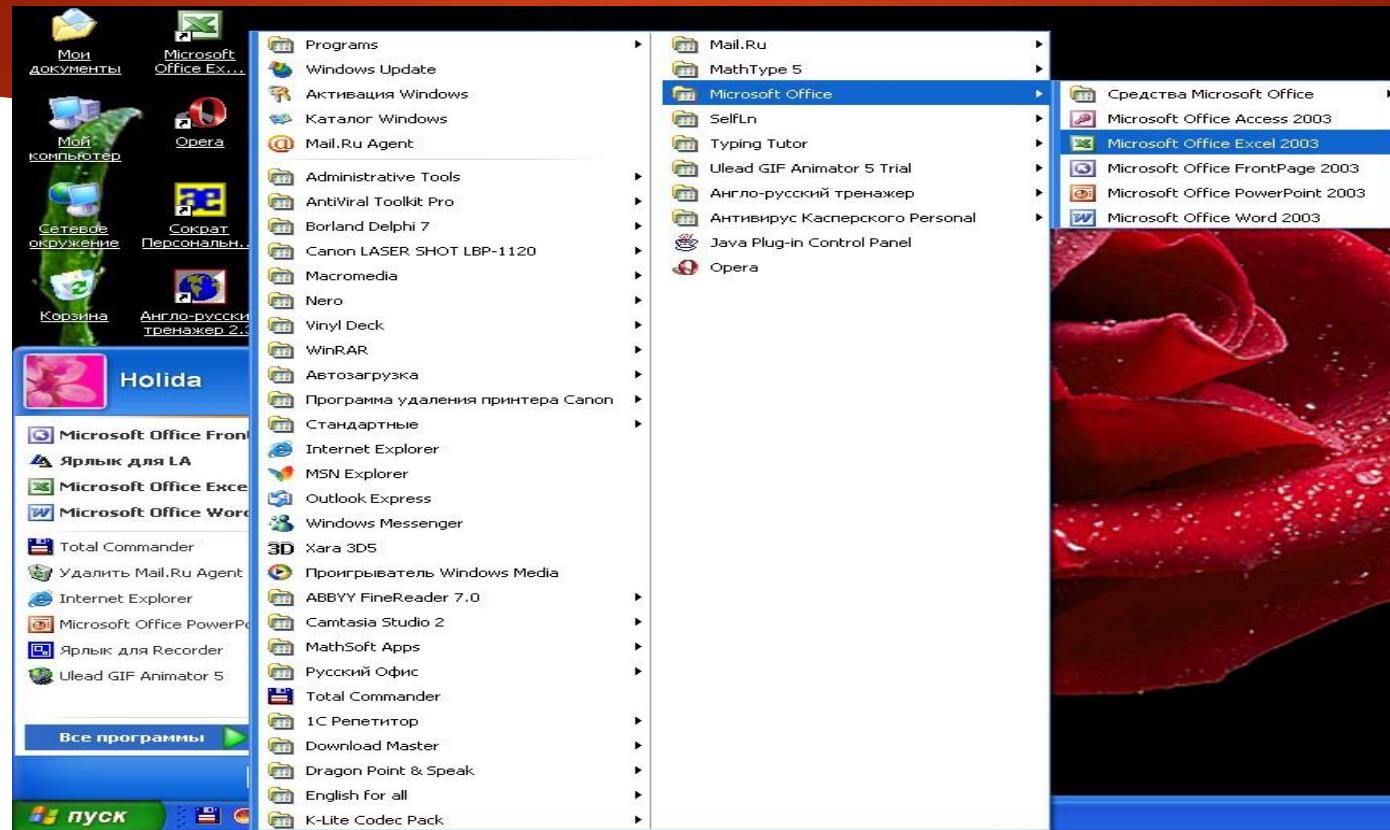
Informatika va axborot texnologiyalari fanidan  
1-kurs 1semestr uchun  
Elektron dars taqdimoti

*Mavzu:* MS EXCEL dasturi va uning imkoniyatlari Amallar  
va sodda ifodalarni hisoblash . Bir necha amal va qavs  
qatnashgan arifmetik ifodalar

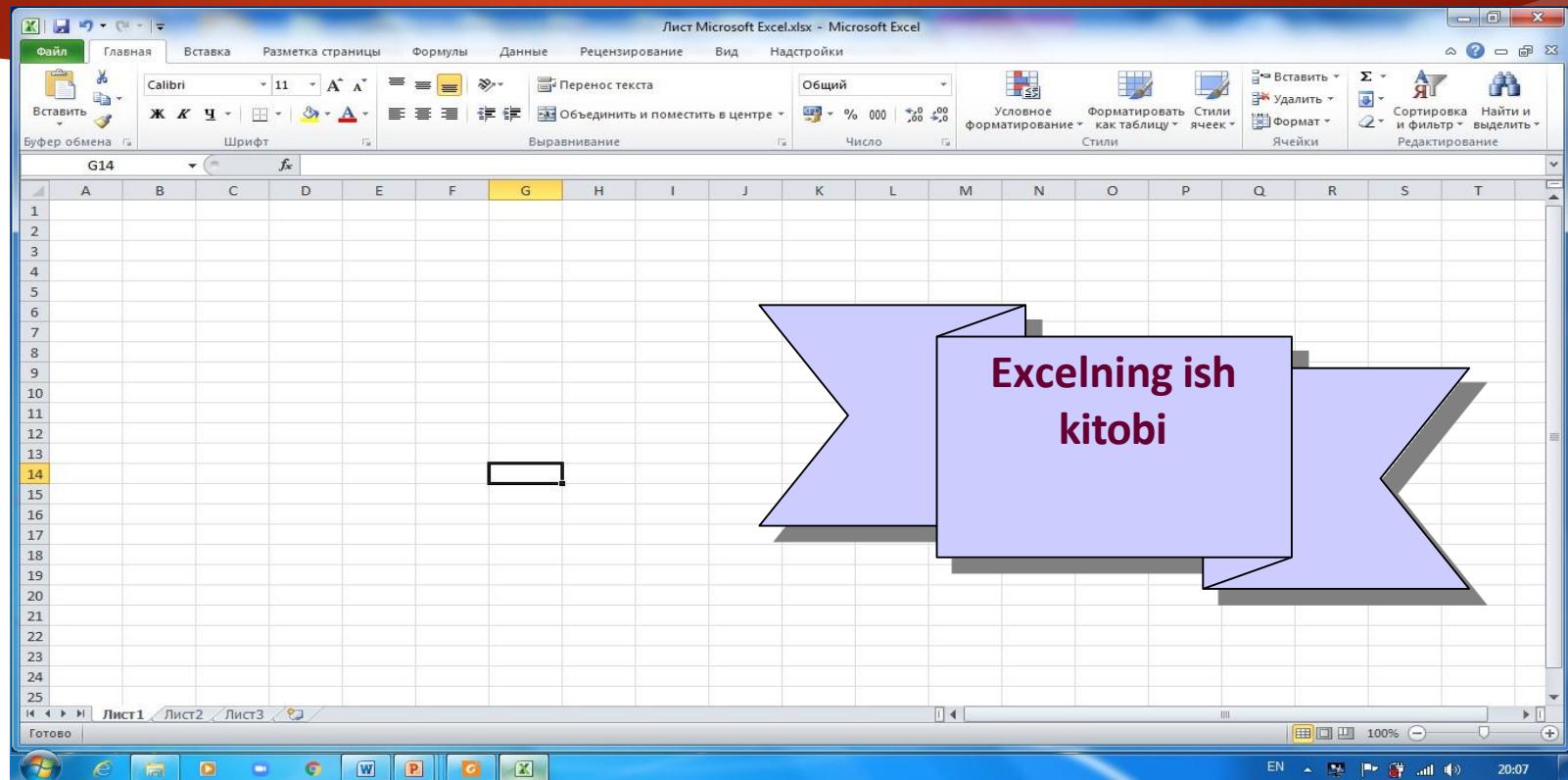
**Tuzuvchi:** Toshmurodov Sh.

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1. MS EXCEL dasturi va uning imkoniyatlari
  2. Amallar va ~~sodda~~ ifodalarni hisoblash
  3. MS Excel 2010 da ishlash jaroyonida yuzaga kelishi mumkin bo`lgan turli xatolar

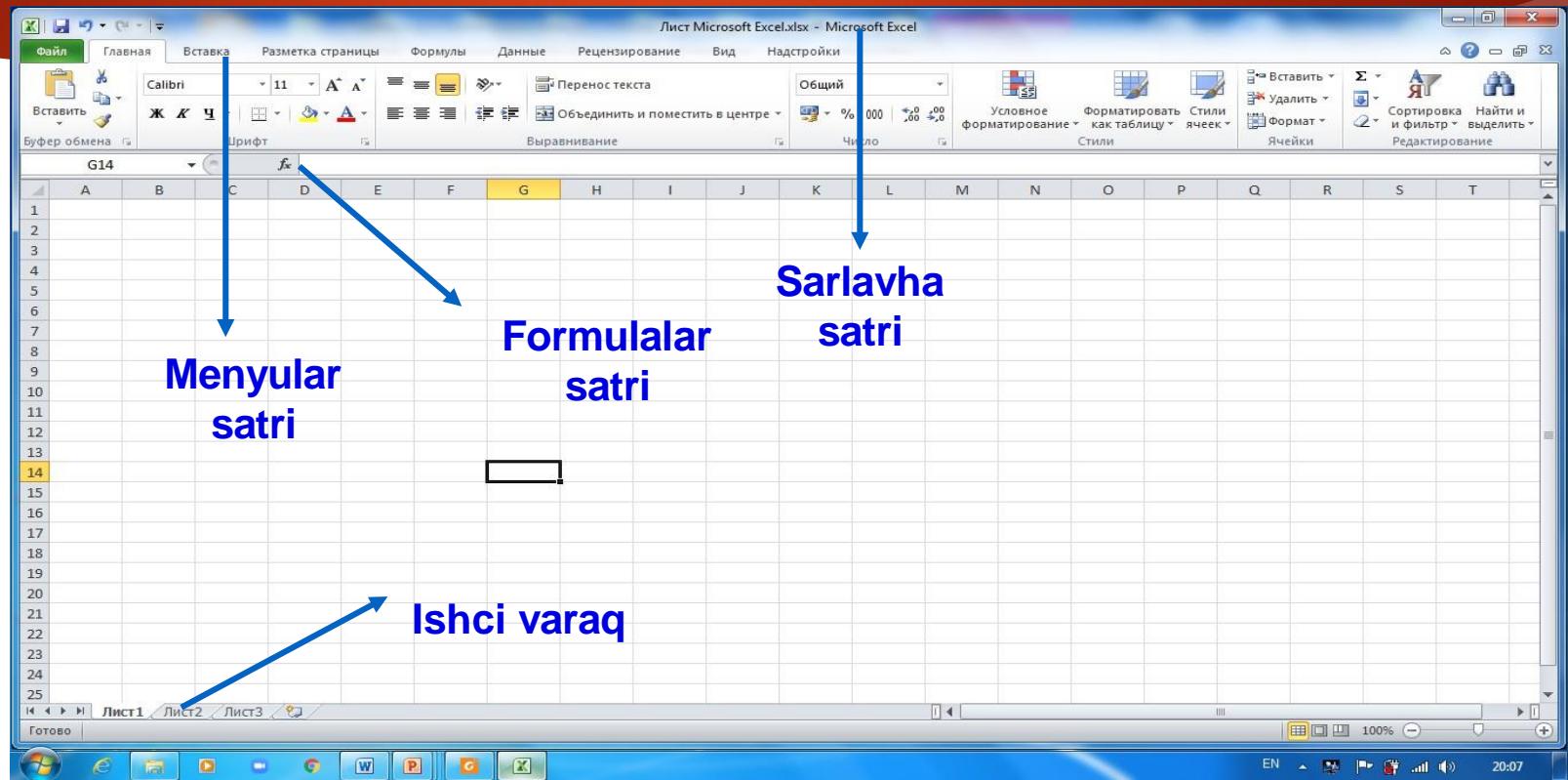
# MS EXCEL dasturi va uning imkoniyatlari



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The screenshot shows a Microsoft Excel window with the title "Лист Microsoft Excel.xlsx - Microsoft Excel". The ribbon menu includes "Файл", "Главная", "Вставка", "Разметка страницы", "Формулы", "Данные", "Рецензирование", "Вид", and "Надстройки". The "Главная" tab is selected, displaying various tools like "Вставить", "Шрифт", "Выравнивание", "Число", "Формат", and "Стили". The worksheet has columns labeled A through T and rows labeled 1 through 25. Row 14 is highlighted with a yellow background, and row 10 is highlighted with a blue background. A blue arrow points from the text "Satrlar sonlar" to cell G14, and another blue arrow points from the text "Ustunlar lotin xarflari" to cell G10. The text "Satrlar sonlar" is located in the bottom-left area of the sheet, and "Ustunlar lotin xarflari" is located in the center-right area.

Ustunlar  
lotin  
xarflari

Satrlar  
sonlar

## MS EXCEL dasturi va uning imkoniyatlari

Jadval ko‘rinishida berilgan fayl MS Excel 2010 da kitob (Книга) deb ataladi.

Kitob esa varaq (лист) lardan tashkil topgan. Standart holatida ular uchta bo‘ib, zaruriyat tug'ilganda ko‘paytirilishi yoki kamaytirilishi mumkin.

MS Excel 2010 ning standart varag'i harflar orqali bylgilanuvchi **16348** ta ustun va raqamlar orqali ifodalanuvchi **1 048 576** ta satr mavjud bo‘lib, ustunlar A harfidan boshlanib **XFD** bilan tugallanadi.

| Microsoft Excel - cm   |        |        |        |        |  |  |  |  |  |
|--|--------|--------|--------|--------|--|--|--|--|--|
| Файл Правка Вид Вставка Формат Сервис Данные Окно Справка Введите вопрос |        |        |        |        |  |  |  |  |  |
| B10 1,7851   |        |        |        |        |  |  |  |  |  |
| 1  | см=2   | см=4   | см=8   | см=10  |  |  |  |  |  |
| 2  | 1,2091 | 1,6274 | 2,4639 | 2,8821 |  |  |  |  |  |
| 3  | 1,1957 | 1,5872 | 2,37   | 2,7615 |  |  |  |  |  |
| 4  | 1,1687 | 1,506  | 2,1808 | 2,5182 |  |  |  |  |  |
| 5  | 1,1275 | 1,3827 | 1,8929 | 2,148  |  |  |  |  |  |
| 6  | 1,0716 | 1,2149 | 1,5015 | 1,6448 |  |  |  |  |  |
| 7  | 1      | 1      | 1      | 1      |  |  |  |  |  |
| 8  | 1,1112 | 1,317  | 1,7165 | 1,9153 |  |  |  |  |  |
| 9  | 1,2014 | 1,5716 | 2,2878 | 2,6441 |  |  |  |  |  |
| 10   | 1,278  | 1,7851 | 2,7618 | 3,248  |  |  |  |  |  |
|  | ,3421  | 1,9611 | 3,1466 | 3,7371 |  |  |  |  |  |
|  | 1,3949 | 2,1027 | 3,4484 | 4,1196 |  |  |  |  |  |
|  | 1,4372 | 2,2122 | 3,6722 | 4,4019 |  |  |  |  |  |
|  | 1,4696 | 2,2916 | 3,8218 | 4,5888 |  |  |  |  |  |
|  | 1,4927 | 2,3422 | 3,8996 | 4,6833 |  |  |  |  |  |
|  | 1,5068 | 2,365  | 3,9068 | 4,6871 |  |  |  |  |  |
|  | 1,5121 | 2,3603 | 3,913  | 4,6902 |  |  |  |  |  |
|  | 1,5169 | 2,3559 | 3,9181 | 4,6926 |  |  |  |  |  |
|  | 1,5212 | 2,3519 | 3,9222 | 4,6944 |  |  |  |  |  |
|  | 1,5251 | 2,3482 | 3,9253 | 4,6957 |  |  |  |  |  |
|  | 1,5284 | 2,3449 | 3,9277 | 4,6964 |  |  |  |  |  |
|  | 1,5311 | 2,34   | 3,9293 | 4,6968 |  |  |  |  |  |
|  | 1,5334 | 2,339  | 3,9303 | 4,6968 |  |  |  |  |  |
|  | 1,5351 | 2,3346 | 3,9311 | 4,6966 |  |  |  |  |  |
|  | 1,5363 | 2,3361 | 3,9311 | 4,6962 |  |  |  |  |  |
|  | 1,537  | 2,3351 | 3,9309 | 4,6957 |  |  |  |  |  |
|  | 1,5372 | 2,3346 | 3,9306 | 4,695  |  |  |  |  |  |
|  | 1,5368 | 2,3346 | 3,9299 | 4,6943 |  |  |  |  |  |
|  | 1,536  | 2,3351 | 3,929  | 4,6934 |  |  |  |  |  |
|  | 1,5346 | 2,336  | 3,9278 | 4,6923 |  |  |  |  |  |
|  | 1,5327 | 2,3375 | 3,9262 | 4,6911 |  |  |  |  |  |
|  | 1,5303 | 2,3394 | 3,9241 | 4,6896 |  |  |  |  |  |
|  | 1,5273 | 2,3417 | 3,9214 | 4,6877 |  |  |  |  |  |

NUSHА оlish

1. Ихтиёрий ячейкани белгиланг

2. Shift түгмасини ушлаб олинг

3. Сичқончани керакли ячейкага олиб бориб, чёртинг.

Ctrl+Insert ,

Sichqonchani kerakli yacheykaga olib  
borib Shift+Insert bosing

# Jadval chizish

The screenshot shows a Microsoft Excel spreadsheet titled "Лист Microsoft Excel.xlsx". The table has columns A, B, and C, and rows 1 through 21. Row 6 is selected. A black border is applied to the entire row 6. The "Borders" dialog box is open, showing various border options. The "Все границы" (All borders) option is selected. Other visible options include "Нижняя граница" (Bottom border), "Верхняя граница" (Top border), "Левая граница" (Left border), "Правая граница" (Right border), and "Нет границы" (No border). The "Нарисовать границы" (Draw border) section is also visible.

# Yacheyskalarni birlashtirish

A screenshot of the Microsoft Excel application interface. The title bar reads "Лист Microsoft Excel.xlsx". The ribbon menu is visible with tabs for "Главная", "Вставка", "Разметка страницы", "Формулы", "Данные", "Рецензирование", "Вид", and "Надстройки". The "Главная" tab is selected. The formula bar shows the text "Перенос текста" and "Объединить и поместить в центре" (Merge and center). The ribbon also includes "Шрифт" (Font) and "Выравнивание" (Orientation) sections. The main workspace shows a grid from column B to K and row 1 to 10. A single cell at the top of the grid (B1) is selected and highlighted with a thick black border. The rest of the grid is empty.

# Yacheykani formatlash

The screenshot shows a Microsoft Excel window with the title "Лист Microsoft Excel.xlsx - Microsoft Excel". The ribbon menu is visible at the top, showing tabs like File, Home, Insert, Page Layout, Formulas, Data, Review, View, and Add-ins. The Home tab is selected, displaying various font and style tools. A table is present on the worksheet, with the header row containing "Fanlar", "informatika va axborot texnologiya lari", "Fizika", and "Klimyo". The first data row contains the numbers 1, 2, and 3. Cell H7 is currently selected. A context menu is open over cell H7, with options like "Вставить" (Insert), "Удалить" (Delete), "Форматировать как таблицу" (Format as Table), and "Формат ячеек" (Format Cells). A "Format Cells" dialog box is displayed, specifically the "Выравнивание" (Orientation) tab. This tab includes settings for horizontal and vertical alignment, text orientation (set to 90 degrees), and text direction (set to "Надпись" - Top-to-bottom). Other tabs in the dialog box include Число (Number), Шрифт (Font), Граница (Border), and Защита (Protection).

## MS EXCEL dasturi va uning imkoniyatlari

Formula – bu mavjud qiymatlar asosida yangi qiymatlarni hisoblovchi tenglamadir.

Formula bu arifmetik ifoda bo‘lib, unda raqamlar, kataklarning adreslari, funksiyalar, arifmetik amallarning belgilari dan iborat bo`ladi.

Formula = belgisidan boshlanadi. By belgini dastur ko‘rganda katakda avtomatik hisoblashni boshlaydi.

## Excelda ishlatalidigan arifmetik amallar belgilari quyidagilar:

- “ + ” - (qo`shish);
- “ - ” - (ayirish);
- “ \* ” - (ko`paytirish);
- “ / ” - (bo`lish);
- “ ^ ” - (darajaga ko`tarish);

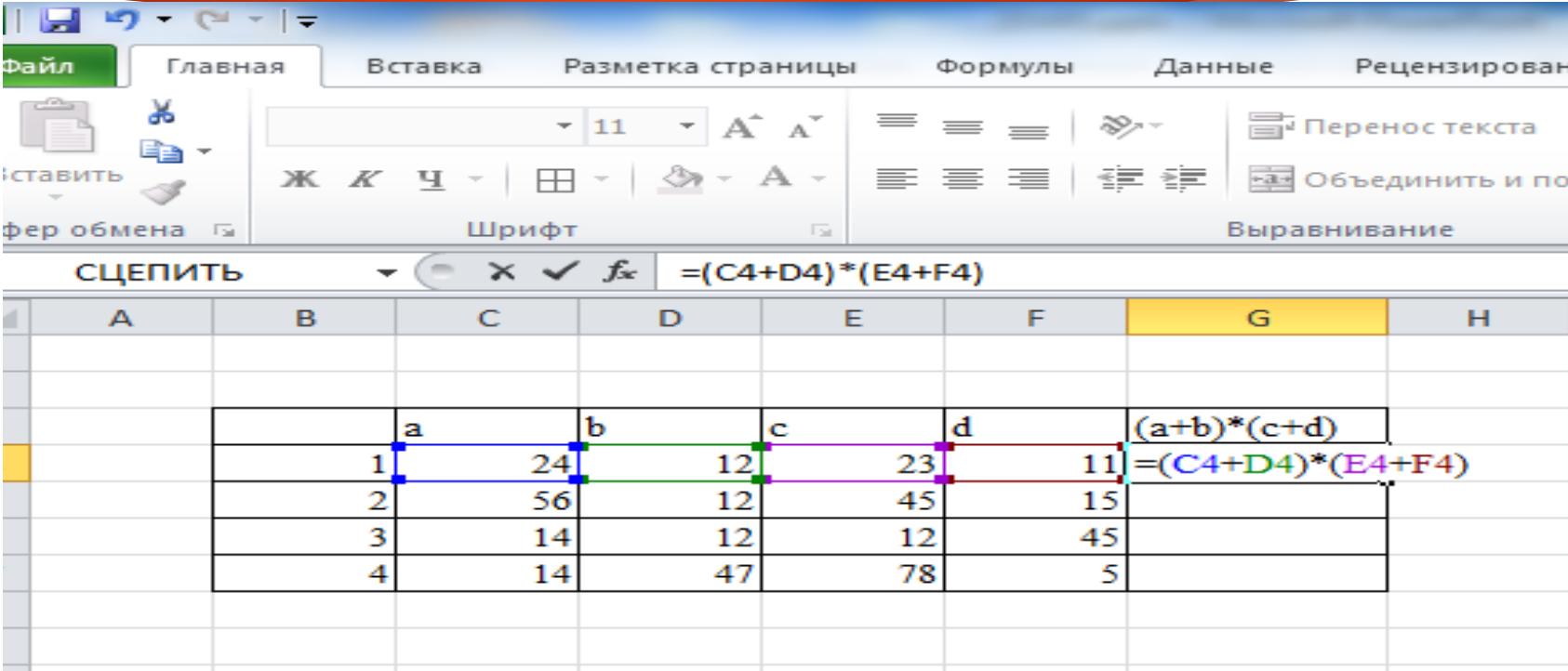
# Bir necha amal va qavs qatnashgan arifmetik ifodalar

**1-mashq.** **B1** katakka 231 ni, **B2** katakga 569 ni kiritib,  
ulaming yig‘indisini **B3** da hosil qiling.

**Bajarish:** **B3** katakka = belgisini yozish orqali

MS Excel 2010 kiritish holatiga o‘tadi. So‘ngra  
sichqonchaning chap tugmasi **B1** katak ustida bosilganda,  
ushbu manzil **B3** da hosil bo‘ladi. Navbatdagi qadamda  
“+”kiritilib, keyin **B2** katak ustida yana sichqonchaning  
chap tugmasi bosiladi. Natijada **B3** da **B1+B2** yozuvi  
paydo bo‘ladi. **Enter** tugmasi bosilgandan so‘ng,  
bajarilgan amal natijasi **B3** da hosil bo‘lib, formulalar  
satrida **=B1+B2** ifoda yoziladi.

# MS Excel 2010 elektron jadvali yordamida $(a+b)*(c+d)$ ifoda o‘zgaruvchilarning ixtiyoriy qiymatlarida hisoblang



The screenshot shows the Microsoft Excel 2010 interface. The ribbon menu is visible at the top, with the 'Главная' tab selected. The formula bar displays the formula  $=(C4+D4)*(E4+F4)$ . The worksheet area contains a table with data in columns A through F. Column G contains the formula and its result. The formula in cell G1 is  $=(C4+D4)*(E4+F4)$ , and the result is 11. The table data is as follows:

|   | a  | b  | c  | d  | (a+b)*(c+d)        |
|---|----|----|----|----|--------------------|
| 1 | 24 | 12 | 23 | 11 | $=(C4+D4)*(E4+F4)$ |
| 2 | 56 | 12 | 45 | 15 |                    |
| 3 | 14 | 12 | 12 | 45 |                    |
| 4 | 14 | 47 | 78 | 5  |                    |

MS Excel 2010 elektron jadvali yordamida  $(a+b)*(c+d)$  ifoda o‘zgaruvchilarning ixtiyoriy qiymatlarida hisoblang

The screenshot shows the Microsoft Excel 2010 ribbon menu at the top. The 'Главная' tab is selected. Below the ribbon, the formula bar displays the formula  $=(C4+D4)*(E4+F4)$ . The cell G4 is currently selected. In the worksheet area, there is a table with columns labeled A through H and rows labeled 1 through 7. The table contains the following data:

|   | a  | b  | c  | d  | $(a+b)*(c+d)$ |
|---|----|----|----|----|---------------|
| 1 | 24 | 12 | 23 | 14 | 1332          |
| 2 | 56 | 12 | 45 | 15 |               |
| 3 | 14 | 12 | 12 | 45 |               |
| 4 | 14 | 47 | 78 | 5  |               |

The formula  $=(C4+D4)*(E4+F4)$  is highlighted in blue, indicating it is the current formula being edited. The cell G4 is also highlighted in yellow.

$$y = \frac{x^2 + \sqrt{x(x^2 + 4x)}}{\sqrt{x + 5(x^2 + 2)}}$$

**x=10 bo`lsa, Y ning  
qiymatini hisolablang.**

|   | A  | B        | C | D | E | F | G | H | I |
|---|----|----------|---|---|---|---|---|---|---|
| 1 | X= | 10       |   |   |   |   |   |   |   |
| 2 |    |          |   |   |   |   |   |   |   |
| 3 |    |          |   |   |   |   |   |   |   |
| 4 | Y  | 6,026115 |   |   |   |   |   |   |   |
| 5 |    |          |   |   |   |   |   |   |   |

A1 katakchaga x ni, A4 katakchaga y ni, B1 katakchaga x ni qiymatini va B4 katakchaga  
 $= (B1^2 + (B1 * (B1^2 + 4 * B1))^{1/2}) / (B1 + 5 * (B1^2 + 2))^{1/2}$   
ni kiritamiz.

# MS Excel 2010 da ishlash jaroyonida yuzaga kelishi mumkin bo`lgan turli xatolar

|        |   |
|--------|---|
| ####   | ma`lumot katakka sig`magan  |
| #ДЕЛ/0 | hisoblash formulasida 0 raqamiga bo`lish holati mavjud  |
| #ЗНАЧ! | formulada mumkin bo`lmagan iofodalar qatnashgan<br>Masalan kiril shriftida o`zgaruvchilar ishlatilayotgan bo`lishi mumkin |

# jaroyonida yuzaga kelishi mumkin bo`lgan turli xatolar

|          |   |
|----------|---|
| #ИМЯ?    | Formulada funksiya o`zgaruvchisi yoki qiymat noto`g`ri kiritilgan     |
| #ССЫЛКА! | Katakka noto`g`ri murojat qilingan                                    |
| #ПУСТО!  | katakka noto`g`ri oraliqda murojat qilingan                           |
| # ЧИСЛО! | formulada funksiya o'zgaruvchisi yoki qiymat noto`g`ri ishlatilmoqda. |

# Misollar

$$r = \frac{a + b + c}{a b}$$

$$S = \frac{2a + d(n - 1)}{2}n$$

$$y = \frac{\sqrt{x(x^2 + 5)}}{\sqrt{5 + 2(x^2 + 2)}}$$



**E`TIBORINGIZ UCHUN  
RAHMAT**