

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/colorPrimary"
    tools:context=".MainActivity">
```

```
    <androidx.constraintlayout.widget.Guideline
        android:id="@+id/guidelineH01"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintGuide_percent="0.25" />
```

```
    <androidx.constraintlayout.widget.Guideline
        android:id="@+id/guidelineH02"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintGuide_percent="0.4" />
```

```
    <androidx.constraintlayout.widget.Guideline
        android:id="@+id/guidelineH03"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintGuide_percent="0.55" />
```

```
    <androidx.constraintlayout.widget.Guideline
        android:id="@+id/guidelineH04"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintGuide_percent="0.7" />
```

```
    <androidx.constraintlayout.widget.Guideline
        android:id="@+id/guidelineH05"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintGuide_percent="0.85" />
```

```
    <androidx.constraintlayout.widget.Guideline
        android:id="@+id/guidelineH06"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintGuide_percent="1" />
```

```
<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guidelineW01"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_percent="0.22" />
```

```
<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guidelineW02"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_percent="0.4" />
```

```
<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guidelineW03"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_percent="0.6" />
```

```
<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guidelineW04"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_percent="0.8" />
```

```
<TextView
```

```
    android:id="@+id/wyswietlacz"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:text="0"
    android:textSize="25pt"
    android:textAlignment="gravity"
    android:gravity="right|center"
    android:paddingRight="20dp"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintBottom_toTopOf="@id/guidelineH01"

/>
```

```
<Button
```

```
    android:id="@+id/kasuj"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH01"
    app:layout_constraintBottom_toTopOf="@id/guidelineH02"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="@id/guidelineW02"
```

```

        android:text="CE"
        android:onClick="kasuj"
    />
<Button
    android:id="@+id/wstecz"
    app:layout_constraintTop_toBottomOf="@id/guidelineH01"
    app:layout_constraintBottom_toTopOf="@id/guidelineH02"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW02"
    app:layout_constraintRight_toRightOf="@id/guidelineW03"
    android:text="x"
    style="@style/stylPrzycisku2"
    android:onClick="wstecz" />

<Button
    android:id="@+id/dziel"
    app:layout_constraintTop_toBottomOf="@id/guidelineH01"
    app:layout_constraintBottom_toTopOf="@id/guidelineH02"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW04"
    app:layout_constraintRight_toRightOf="parent"
    android:shadowDx="@android:integer/config_longAnimTime"
    android:text="/"
    style="@style/stylPrzycisku2"
    android:onClick="dzialanie"
    />

<Button
    android:id="@+id/procent"
    app:layout_constraintTop_toBottomOf="@id/guidelineH02"
    app:layout_constraintBottom_toTopOf="@id/guidelineH03"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="@id/guidelineW01"
    android:text="%"
    style="@style/stylPrzycisku2"
    android:onClick="procent"
    />

<Button
    android:id="@+id/pierwiastek"
    app:layout_constraintTop_toBottomOf="@id/guidelineH02"
    app:layout_constraintBottom_toTopOf="@id/guidelineH03"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW01"
    app:layout_constraintRight_toRightOf="@id/guidelineW02"
    android:text="sqrt"
    style="@style/stylPrzycisku2"
    android:onClick="pierwiastek"
    />

<Button
    android:id="@+id/kwadrat"
    app:layout_constraintTop_toBottomOf="@id/guidelineH02"
    app:layout_constraintBottom_toTopOf="@id/guidelineH03"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW02"
    app:layout_constraintRight_toRightOf="@id/guidelineW03"
    android:text="sqr"
    style="@style/stylPrzycisku2"

```

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        android:onClick="kwadrat"/>
<Button
    android:id="@+id/razy"
    app:layout_constraintTop_toBottomOf="@id/guidelineH02"
    app:layout_constraintBottom_toTopOf="@id/guidelineH03"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW04"
    app:layout_constraintRight_toRightOf="parent"
    android:text="*"
    style="@style/stylPrzycisku2"
    android:onClick="dzialanie"
/>
<Button
    android:id="@+id/p7"
    app:layout_constraintTop_toBottomOf="@id/guidelineH03"
    app:layout_constraintBottom_toTopOf="@id/guidelineH04"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="@id/guidelineW01"
    android:text="7"
    style="@style/stylPrzycisku2"
    android:onClick="dodajCyfre"
/>
<Button
    android:id="@+id/p8"
    app:layout_constraintTop_toBottomOf="@id/guidelineH03"
    app:layout_constraintBottom_toTopOf="@id/guidelineH04"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW01"
    app:layout_constraintRight_toRightOf="@id/guidelineW02"
    android:text="8"
    style="@style/stylPrzycisku2"
    android:onClick="dodajCyfre"
/>
<Button
    android:id="@+id/p9"
    app:layout_constraintTop_toBottomOf="@id/guidelineH03"
    app:layout_constraintBottom_toTopOf="@id/guidelineH04"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW02"
    app:layout_constraintRight_toRightOf="@id/guidelineW03"
    android:text="9"
    style="@style/stylPrzycisku2"
    android:onClick="dodajCyfre"
/>
<Button
    android:id="@+id/minus"
    app:layout_constraintTop_toBottomOf="@id/guidelineH03"
    app:layout_constraintBottom_toTopOf="@id/guidelineH04"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW04"
    app:layout_constraintRight_toRightOf="parent"
    android:text="-"
    style="@style/stylPrzycisku2"
    android:onClick="dzialanie"
/>
<Button
    android:id="@+id/p4"
    app:layout_constraintTop_toBottomOf="@id/guidelineH04"

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        app:layout_constraintBottom_toTopOf="@id/guidelineH05"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="@id/guidelineW01"
        android:text="4"
        style="@style/stylPrzycisku2"
        android:onClick="dodajCyfre"
    />
<Button
    android:id="@+id/p5"
    app:layout_constraintTop_toBottomOf="@id/guidelineH04"
    app:layout_constraintBottom_toTopOf="@id/guidelineH05"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW01"
    app:layout_constraintRight_toRightOf="@id/guidelineW02"
    android:text="5"
    style="@style/stylPrzycisku2"
    android:onClick="dodajCyfre"

    />
<Button
    android:id="@+id/p6"
    app:layout_constraintTop_toBottomOf="@id/guidelineH04"
    app:layout_constraintBottom_toTopOf="@id/guidelineH05"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW02"
    app:layout_constraintRight_toRightOf="@id/guidelineW03"
    android:text="6"
    style="@style/stylPrzycisku2"
    android:onClick="dodajCyfre"
    />
<Button
    android:id="@+id/plus"

    app:layout_constraintTop_toBottomOf="@id/guidelineH04"
    app:layout_constraintBottom_toTopOf="@id/guidelineH05"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW04"
    app:layout_constraintRight_toRightOf="parent"
    android:text="+"
    style="@style/stylPrzycisku2"
    android:onClick="dzialanie"
    />
<Button
    android:id="@+id/p1"
    app:layout_constraintTop_toBottomOf="@id/guidelineH05"
    app:layout_constraintBottom_toTopOf="@id/guidelineH06"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="@id/guidelineW01"
    android:text="1"
    style="@style/stylPrzycisku2"
    android:onClick="dodajCyfre"

    />
<Button
    android:id="@+id/p2"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH05"

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        app:layout_constraintBottom_toTopOf="@id/guidelineH06"
        app:layout_constraintLeft_toLeftOf="@id/guidelineW01"
        app:layout_constraintRight_toRightOf="@id/guidelineW02"
        android:text="2"
        android:onClick="dodajCyfre"

    />
<Button
    android:id="@+id/p3"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH05"
    app:layout_constraintBottom_toTopOf="@id/guidelineH06"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW02"
    app:layout_constraintRight_toRightOf="@id/guidelineW03"
    android:text="3"
    android:onClick="dodajCyfre"
/>
<Button
    android:id="@+id/rowne"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH05"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW03"
    app:layout_constraintRight_toRightOf="parent"
    android:text="="
    android:onClick="rownaSie"
/>

<Button
    android:id="@+id/zmianaZnaku"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH02"
    app:layout_constraintBottom_toBottomOf="@id/guidelineH03"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW03"
    app:layout_constraintRight_toRightOf="@id/guidelineW04"
    android:text="+/-"
    android:onClick="zmienZnak"
/>
<Button
    android:id="@+id/p0"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH04"
    app:layout_constraintBottom_toBottomOf="@id/guidelineH05"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW03"
    app:layout_constraintRight_toRightOf="@id/guidelineW04"
    android:text="0"
    android:onClick="dodajCyfre"
/>
<Button
    android:id="@+id/przecinek"
    style="@style/stylPrzycisku2"
    app:layout_constraintTop_toBottomOf="@id/guidelineH03"
    app:layout_constraintBottom_toBottomOf="@id/guidelineH04"
    app:layout_constraintLeft_toLeftOf="@id/guidelineW03"

```

```
app:layout_constraintRight_toRightOf="@id/guidelineW04"  
android:text=", "  
android:onClick="dodajPrzecinek"  
</>
```

```
<Button
```

```
    android:id="@+id/blank"  
    style="@style/stylPrzycisku2"  
    app:layout_constraintTop_toBottomOf="@id/guidelineH01"  
    app:layout_constraintBottom_toBottomOf="@id/guidelineH02"  
    app:layout_constraintLeft_toLeftOf="@id/guidelineW03"  
    app:layout_constraintRight_toRightOf="@id/guidelineW04"  
    android:text=""  
</>
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```