

```

[ 1 ] MySaicoro.java
/*
-----
    積が奇数の 2 個のさいころ
    Android 4.4 (Kit Kat)
    Copyright(C) K.Niwa 2019.12.12
-----
*/

package jp.kiyo.wuena.mysaicoro;

import android.content.Context;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.graphics.Rect;
import android.util.AttributeSet;
import android.view.View;
import android.content.res.Resources; //画像用
import android.graphics.*;
import android.view.*;

public class MySaicoro extends View {

    private Bitmap bitmap1 = null;
    private Bitmap bitmap2 = null;
    private Bitmap bitmap3 = null;
    private Bitmap bitmap4 = null;
    private Bitmap bitmap5 = null;
    private Bitmap bitmap6 = null;

    int flag=0;
    //自動識別子
    int syoki=0; //初期化
    識別子
    int r1,r2;
    //さいころ 1、さいころ 2 の目の識別子 (乱数)
    int ct1=0;
    //実験回数
    int d11=0,d21=0,d31=0,d41=0,d51=0,d61=0; //度数 d31 とはさいころ 1 の目が

```

3で、さいころ2の目が1の度数

```
int d12=0,d22=0,d32=0,d42=0,d52=0,d62=0;
int d13=0,d23=0,d33=0,d43=0,d53=0,d63=0;
int d14=0,d24=0,d34=0,d44=0,d54=0,d64=0;
int d15=0,d25=0,d35=0,d45=0,d55=0,d65=0;
int d16=0,d26=0,d36=0,d46=0,d56=0,d66=0;
int d=0;
```

//積が奇数の度数

```
float ritu;
```

//積が奇数の割合

```
int yy,xx;
```

//枠に使用したループカウンター

```
int width;
```

```
int height;
```

```
public MySaicoro(Context context) {
    super(context);
    init(context);
}
```

```
public MySaicoro(Context context, AttributeSet attrs) {
    super(context,attrs);
    init(context);
}
```

```
public MySaicoro(Context context, AttributeSet attrs,int defStyle) {
    super(context,attrs,defStyle);
    init(context);
}
```

```
private void init(Context context) {
    Resources res = context.getResources();
    bitmap1 = BitmapFactory.decodeResource(res, R.drawable.sai1);
    bitmap2 = BitmapFactory.decodeResource(res, R.drawable.sai2);
    bitmap3 = BitmapFactory.decodeResource(res, R.drawable.sai3);
    bitmap4 = BitmapFactory.decodeResource(res, R.drawable.sai4);
    bitmap5 = BitmapFactory.decodeResource(res, R.drawable.sai5);
    bitmap6 = BitmapFactory.decodeResource(res, R.drawable.sai6);
}
```

```

        //WindowManager wm = ( WindowManager) context.getSystemService
(Context.WINDOW_SERVICE);
        //Display disp = wm.getDefaultDisplay();
        //width = disp.getWidth();
        //height = disp.getHeight();
    }

    @Override
    protected void onDraw(Canvas canvas) {
        // TODO 自動生成されたメソッド・スタブ

        float a=0;
        float b=0;

        super.onDraw(canvas);
        canvas.drawColor(Color.WHITE);
        Paint paint = new Paint();
        paint.setColor(Color.BLUE);
        paint.setAlpha(50);
        canvas.drawRect((getWidth()/2-240)+10,(getHeight()/2-343)+10,(getWidth()/2-240)
+470,(getHeight()/2-343)+675,paint);

        paint.setAlpha(10000);
        paint.setColor(Color.BLUE);

        for (int i=0;i<2;i++) {
            canvas.drawLine((getWidth()/2-240)+10+i,(getHeight()/2-343)+10+i,(getWidth
()/2-240)+10+i,(getHeight()/2-343)+675-i,paint);
            canvas.drawLine((getWidth()/2-240)+10+i,(getHeight()/2-343)+675-i,(getWidth
()/2-240)+470-i,(getHeight()/2-343)+675-i,paint);
            canvas.drawLine((getWidth()/2-240)+470-i,(getHeight()/2-343)+675-i,(getWidth
()/2-240)+470-i,(getHeight()/2-343)+10+i,paint);
            canvas.drawLine((getWidth()/2-240)+470-i,(getHeight()/2-343)+10+i,(getWidth
()/2-240)+10+i,(getHeight()/2-343)+10+i,paint);
        }

        paint.setColor(Color.BLUE);
        paint.setTextSize(20.0f);
        canvas.drawText("【積が奇数の2個のさいころ】", (getWidth()/2-240)+120-20,
(getHeight()/2-343)+80,paint);
    }

```

```

paint.setColor(Color.BLACK);
paint.setTextSize(17.0f);
    canvas.drawText("さいころ I ",(getWidth()/2-240)+135+10,(getHeight()/2-343)
+188,paint);
    canvas.drawText("さいころ II ",(getWidth()/2-240)+255+10,(getHeight()/2-343)
+188,paint);

```

```

if (MainActivity.ritsu != 0) {
    a=(float) 0.7*320/MainActivity.ritsu;    //----- < 画像の拡大・縮小の横の倍率を指定する >
    b=(float) 0.7*320/MainActivity.ritsu;    //----- < 画像の拡大・縮小の縦の倍率を指定する >
}
else {
    a=(float) 1.0;
    b=(float) 1.0;
}

```

```

Matrix Mat = new Matrix(); //-----***
Mat.postScale(a, b);      //-----***
Bitmap bitmap11 = Bitmap.createBitmap( //-----***
    bitmap1,0,0, //-----***
    bitmap1.getWidth(), //-----***
    bitmap1.getHeight(), //-----***
    Mat,true //-----***
); //-----***

```

```

Bitmap bitmap22 = Bitmap.createBitmap( //-----***
    bitmap2,0,0, //-----***
    bitmap2.getWidth(), //-----***
    bitmap2.getHeight(), //-----***
    Mat,true //-----***
); //-----***

```

```

Bitmap bitmap33 = Bitmap.createBitmap( //-----***
    bitmap3,0,0, //-----***
    bitmap3.getWidth(), //-----***
    bitmap3.getHeight(), //-----***
    Mat,true //-----***
); //-----***

```

```

); //-----***

Bitmap bitmap44 = Bitmap.createBitmap( //-----***
    bitmap4,0,0, //-----***
    bitmap4.getWidth(), //-----***
    bitmap4.getHeight(), //-----***
    Mat,true //-----***
); //-----***

```

```

Bitmap bitmap55 = Bitmap.createBitmap( //-----***
    bitmap5,0,0, //-----***
    bitmap5.getWidth(), //-----***
    bitmap5.getHeight(), //-----***
    Mat,true //-----***
); //-----***

```

```

Bitmap bitmap66 = Bitmap.createBitmap( //-----***
    bitmap6,0,0, //-----***
    bitmap6.getWidth(), //-----***
    bitmap6.getHeight(), //-----***
    Mat,true //-----***
); //-----***

```

```

if (bitmap11 != null && bitmap22 != null && bitmap33 != null && bitmap44 != null
&& bitmap55 != null && bitmap66 != null) {

```

```

    ct1++;

```

```

    r1=(int) (1+6*Math.random());

```

```

    if (r1==1) {

```

```

        canvas.drawBitmap(bitmap11, (getWidth()/2-240)+160,(getHeight()/2-343)
+130-5, paint);
    }

```

```

    else if (r1==2) {

```

```

        canvas.drawBitmap(bitmap22, (getWidth()/2-240)+160,(getHeight()/2-343)
+130-5, paint);

```

```

    }

```

```

    else if (r1==3) {

```

```

        canvas.drawBitmap(bitmap33, (getWidth()/2-240)+160,(getHeight()/2-343)

```

```

+130-5, paint);

    }
    else if (r1==4) {
        canvas.drawBitmap(bitmap44, (getWidth()/2-240)+160,(getHeight()/2-343)
+130-5, paint);

    }
    else if (r1==5) {
        canvas.drawBitmap(bitmap55, (getWidth()/2-240)+160,(getHeight()/2-343)
+130-5, paint);

    }
    else if (r1==6) {
        canvas.drawBitmap(bitmap66, (getWidth()/2-240)+160,(getHeight()/2-343)
+130-5, paint);

    }

    r2=(int) (1+6*Math.random());
    if (r2==1) {
        canvas.drawBitmap(bitmap11, (getWidth()/2-240)+280,(getHeight()/2-343)
+130-5, paint);
    }
    else if (r2==2) {
        canvas.drawBitmap(bitmap22, (getWidth()/2-240)+280,(getHeight()/2-343)
+130-5, paint);

    }
    else if (r2==3) {
        canvas.drawBitmap(bitmap33, (getWidth()/2-240)+280,(getHeight()/2-343)
+130-5, paint);

    }
    else if (r2==4) {
        canvas.drawBitmap(bitmap44, (getWidth()/2-240)+280,(getHeight()/2-343)
+130-5, paint);

    }
    else if (r2==5) {

```

```

        canvas.drawBitmap(bitmap55, (getWidth()/2-240)+280, (getHeight()/2-343)
+130-5, paint);

    }
    else if (r2==6) {
        canvas.drawBitmap(bitmap66, (getWidth()/2-240)+280, (getHeight()/2-343)
+130-5, paint);

    }
} //if (bitmap1 != null && ...

if (r1==1 && r2==1) {
    d11++;
}
else if (r1==2 && r2==1) {
    d21++;
}
else if (r1==3 && r2==1) {
    d31++;
}
else if (r1==4 && r2==1) {
    d41++;
}
else if (r1==5 && r2==1) {
    d51++;
}
else if (r1==6 && r2==1) {
    d61++;
}
else if (r1==1 && r2==2) {
    d12++;
}
else if (r1==2 && r2==2) {
    d22++;
}
else if (r1==3 && r2==2) {
    d32++;
}
else if (r1==4 && r2==2) {
    d42++;
}

```

```
}  
else if (r1==5 && r2==2) {  
    d52++;  
}  
else if (r1==6 && r2==2) {  
    d62++;  
}  
else if (r1==1 && r2==3) {  
    d13++;  
}  
else if (r1==2 && r2==3) {  
    d23++;  
}  
else if (r1==3 && r2==3) {  
    d33++;  
}  
else if (r1==4 && r2==3) {  
    d43++;  
}  
else if (r1==5 && r2==3) {  
    d53++;  
}  
else if (r1==6 && r2==3) {  
    d63++;  
}  
else if (r1==1 && r2==4) {  
    d14++;  
}  
else if (r1==2 && r2==4) {  
    d24++;  
}  
else if (r1==3 && r2==4) {  
    d34++;  
}  
else if (r1==4 && r2==4) {  
    d44++;  
}  
else if (r1==5 && r2==4) {  
    d54++;  
}  
}
```

```
else if (r1==6 && r2==4) {
    d64++;
}
else if (r1==1 && r2==5) {
    d15++;
}
else if (r1==2 && r2==5) {
    d25++;
}
else if (r1==3 && r2==5) {
    d35++;
}
else if (r1==4 && r2==5) {
    d45++;
}
else if (r1==5 && r2==5) {
    d55++;
}
else if (r1==6 && r2==5) {
    d65++;
}
else if (r1==1 && r2==6) {
    d16++;
}
else if (r1==2 && r2==6) {
    d26++;
}
else if (r1==3 && r2==6) {
    d36++;
}
else if (r1==4 && r2==6) {
    d46++;
}
else if (r1==5 && r2==6) {
    d56++;
}
else if (r1==6 && r2==6) {
    d66++;
}
```

```

d=d11+d13+d15+d31+d33+d35+d51+d53+d55; //積が奇数の度数
paint.setColor(Color.BLACK);
paint.setTextSize(19.0F);
canvas.drawText("積が奇数の回数 = "+d, (getWidth()/2-240)+100, (getHeight()
/2-343)+460, paint);

if (ct1 != 0) {
    ritu = (float) d / (float) ct1; //積が奇数の割合
    paint.setColor(Color.BLUE);
    paint.setTextSize(19.0F);
    canvas.drawText("積が奇数の割合 = "+ritu, (getWidth() /2-240) +100,
(getHeight() /2-343)+490, paint);
}

paint.setColor(Color.BLACK);
paint.setTextSize(19.0F);
canvas.drawText("実験回数 = "+ct1, (getWidth() /2-240)+170, (getHeight() /2-343)
+230, paint);

//表の枠
paint.setColor(Color.BLACK);
canvas.drawLine((getWidth() /2-240)+128, (getHeight() /2-343)+255, (getWidth()
/2-240)+353, (getHeight() /2-343)+255, paint);
canvas.drawLine((getWidth() /2-240)+128, (getHeight() /2-343)+275, (getWidth()
/2-240)+193, (getHeight() /2-343)+275, paint);
canvas.drawLine((getWidth() /2-240)+193, (getHeight() /2-343)+275, (getWidth()
/2-240)+209, (getHeight() /2-343)+295, paint);

for (yy=335;yy<=455;yy=yy+20) {
    canvas.drawLine((getWidth() /2-240)+128, (getHeight() /2-343)+yy-40,
(getWidth() /2-240)+353, (getHeight() /2-343)+yy-40, paint);
}
for (xx=353;xx>208;xx=xx-24) {
    canvas.drawLine((getWidth() /2-240)+xx, (getHeight() /2-343)+255, (getWidth()
/2-240)+xx, (getHeight() /2-343)+415, paint);
}
canvas.drawLine((getWidth() /2-240)+128, (getHeight() /2-343)+255, (getWidth()
/2-240)+128, (getHeight() /2-343)+415, paint);

//表の文字

```

```

    paint.setTextSize (14.0F);
    canvas.drawText ("さいころ II", (getWidth ()/2-240)+133, (getHeight ()/2-343)+270,
paint);
    paint.setTextSize (15.0F);
    canvas.drawText (" 1 ", (getWidth ()/2-240)+213, (getHeight ()/2-343)+280, paint);
    canvas.drawText (" 2 ", (getWidth ()/2-240)+238, (getHeight ()/2-343)+280, paint);
    canvas.drawText (" 3 ", (getWidth ()/2-240)+263, (getHeight ()/2-343)+280, paint);
    canvas.drawText (" 4 ", (getWidth ()/2-240)+288, (getHeight ()/2-343)+280, paint);
    canvas.drawText (" 5 ", (getWidth ()/2-240)+313, (getHeight ()/2-343)+280, paint);
    canvas.drawText (" 6 ", (getWidth ()/2-240)+338, (getHeight ()/2-343)+280, paint);

    paint.setTextSize (14.0F);
    canvas.drawText ("さいころ I", (getWidth ()/2-240)+130, (getHeight ()/2-343)+290,
paint);
    paint.setTextSize (15.0F);
    canvas.drawText (" 1 ", (getWidth ()/2-240)+158, (getHeight ()/2-343)+310, paint);
    canvas.drawText (" 2 ", (getWidth ()/2-240)+158, (getHeight ()/2-343)+330, paint);
    canvas.drawText (" 3 ", (getWidth ()/2-240)+158, (getHeight ()/2-343)+350, paint);
    canvas.drawText (" 4 ", (getWidth ()/2-240)+158, (getHeight ()/2-343)+370, paint);
    canvas.drawText (" 5 ", (getWidth ()/2-240)+158, (getHeight ()/2-343)+390, paint);
    canvas.drawText (" 6 ", (getWidth ()/2-240)+158, (getHeight ()/2-343)+410, paint);

    //表の度数
    paint.setTextSize (15.0F);
        paint.setColor (Color.BLUE);canvas.drawText (""+d11, (getWidth ()/2-240)+213,
(getHeight ()/2-343)+310, paint);
        paint.setColor (Color.BLACK);canvas.drawText (""+d12, (getWidth ()/2-240)+237,
(getHeight ()/2-343)+310, paint);
        paint.setColor (Color.BLACK);canvas.drawText (""+d21, (getWidth ()/2-240)+213,
(getHeight ()/2-343)+330, paint);
        paint.setColor (Color.BLACK);canvas.drawText (""+d22, (getWidth ()/2-240)+237,
(getHeight ()/2-343)+330, paint);
        paint.setColor (Color.BLUE);canvas.drawText (""+d31, (getWidth ()/2-240)+213,
(getHeight ()/2-343)+350, paint);
        paint.setColor (Color.BLACK);canvas.drawText (""+d32, (getWidth ()/2-240)+237,
(getHeight ()/2-343)+350, paint);
        paint.setColor (Color.BLACK);canvas.drawText (""+d41, (getWidth ()/2-240)+213,
(getHeight ()/2-343)+370, paint);
        paint.setColor (Color.BLACK);canvas.drawText (""+d42, (getWidth ()/2-240)+237,
(getHeight ()/2-343)+370, paint);

```

```

        paint.setColor ( Color.BLUE ) ;canvas.drawText ( ""+d51, ( getWidth () /2-240) +213,
(getHeight () /2-343) +390, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d52, ( getWidth () /2-240) +237,
(getHeight () /2-343) +390, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d61, ( getWidth () /2-240) +213,
(getHeight () /2-343) +410, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d62, ( getWidth () /2-240) +237,
(getHeight () /2-343) +410, paint ) ;
        paint.setColor ( Color.BLUE ) ;canvas.drawText ( ""+d13, ( getWidth () /2-240) +261,
(getHeight () /2-343) +310, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d14, ( getWidth () /2-240) +285,
(getHeight () /2-343) +310, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d23, ( getWidth () /2-240) +261,
(getHeight () /2-343) +330, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d24, ( getWidth () /2-240) +285,
(getHeight () /2-343) +330, paint ) ;
        paint.setColor ( Color.BLUE ) ;canvas.drawText ( ""+d33, ( getWidth () /2-240) +261,
(getHeight () /2-343) +350, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d34, ( getWidth () /2-240) +285,
(getHeight () /2-343) +350, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d43, ( getWidth () /2-240) +261,
(getHeight () /2-343) +370, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d44, ( getWidth () /2-240) +285,
(getHeight () /2-343) +370, paint ) ;
        paint.setColor ( Color.BLUE ) ;canvas.drawText ( ""+d53, ( getWidth () /2-240) +261,
(getHeight () /2-343) +390, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d54, ( getWidth () /2-240) +285,
(getHeight () /2-343) +390, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d63, ( getWidth () /2-240) +261,
(getHeight () /2-343) +410, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d64, ( getWidth () /2-240) +285,
(getHeight () /2-343) +410, paint ) ;
        paint.setColor ( Color.BLUE ) ;canvas.drawText ( ""+d15, ( getWidth () /2-240) +309,
(getHeight () /2-343) +310, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d16, ( getWidth () /2-240) +333,
(getHeight () /2-343) +310, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d25, ( getWidth () /2-240) +309,
(getHeight () /2-343) +330, paint ) ;
        paint.setColor ( Color.BLACK ) ;canvas.drawText ( ""+d26, ( getWidth () /2-240) +333,
(getHeight () /2-343) +330, paint ) ;

```

```

        paint.setColor ( Color.BLUE );canvas.drawText ( ""+d35, (getWidth () /2-240) +309,
(getHeight () /2-343) +350, paint);
        paint.setColor ( Color.BLACK );canvas.drawText ( ""+d36, (getWidth () /2-240) +333,
(getHeight () /2-343) +350, paint);
        paint.setColor ( Color.BLACK );canvas.drawText ( ""+d45, (getWidth () /2-240) +309,
(getHeight () /2-343) +370, paint);
        paint.setColor ( Color.BLACK );canvas.drawText ( ""+d46, (getWidth () /2-240) +333,
(getHeight () /2-343) +370, paint);
        paint.setColor ( Color.BLUE );canvas.drawText ( ""+d55, (getWidth () /2-240) +309,
(getHeight () /2-343) +390, paint);
        paint.setColor ( Color.BLACK );canvas.drawText ( ""+d56, (getWidth () /2-240) +333,
(getHeight () /2-343) +390, paint);
        paint.setColor ( Color.BLACK );canvas.drawText ( ""+d65, (getWidth () /2-240) +309,
(getHeight () /2-343) +410, paint);
        paint.setColor ( Color.BLACK );canvas.drawText ( ""+d66, (getWidth () /2-240) +333,
(getHeight () /2-343) +410, paint);

```

```

        paint.setColor (Color.BLACK);
        paint.setTextSize (18.0F);
        canvas.drawText ("※ 画面を 5 回タッチすると自動になります。", (getWidth ()
/2-240) +50-20, (getHeight () /2-343) +530, paint);
        canvas.drawText ("※ 画面をタッチすると自動が止まります。", (getWidth () /2-240)
+50-20, (getHeight () /2-343) +555, paint);
        canvas.drawText ("※ 更に画面をタッチすると初期化されます。", (getWidth ()
/2-240) +50-20, (getHeight () /2-343) +580, paint);
        canvas.drawText ("※ 画面が暗くなったらタイトルバーをタッチ!", (getWidth ()
/2-240) +50-20, (getHeight () /2-343) +605, paint);

```

```

        paint.setColor (Color.BLUE);
        paint.setTextSize (19.0F);
        canvas.drawText ("Copyright (C) K.Niwa 2019.11.19", (getWidth () /2-240) +100,
(getHeight () /2-343) +640, paint); //作者表示

```

```

        if (flag >= 5) {
            if (d11<98 && d21<98 && d31<98 && d41<98 && d51<98 && d61<98 && d12
<98 && d22<98 && d32<98 && d42<98 && d52<98 && d62<98 && d13<98 && d23<98 &&
d33<98 && d43<98 && d53<98 && d63<98 && d14<98 && d24<98 && d34<98 && d44<98
&& d54<98 && d64<98 && d15<98 && d25<98 && d35<98 && d45<98 && d55<98 && d65<
98 && d16<98 && d26<98 && d36<98 && d46<98 && d56<98 && d66<98) {
                invalidate ();
            }
        }

```

```

    }
}

} //protected void onDraw(Canvas canvas)

@Override
public boolean onTouchEvent(MotionEvent event) {
    flag++;
    flag = flag % 6;

    syoki++;
    if (syoki > 6) {
        flag=0;
        //自動識別子
        syoki=0;
//初期化識別子
        ct1=0;
        //実験回数
        d11=0;d21=0;d31=0;d41=0;d51=0;d61=0; //度数 d31 とはさいころ1の目が
3で、さいころ2の目が1の度数
        d12=0;d22=0;d32=0;d42=0;d52=0;d62=0;
        d13=0;d23=0;d33=0;d43=0;d53=0;d63=0;
        d14=0;d24=0;d34=0;d44=0;d54=0;d64=0;
        d15=0;d25=0;d35=0;d45=0;d55=0;d65=0;
        d16=0;d26=0;d36=0;d46=0;d56=0;d66=0;
        d=0;
//積が奇数の度数
        ritu=0;
        //積が奇数の割合
    }

    invalidate();
    return false;
}
}
}

```

[2] activity_main.xml

```

<?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"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <jp.kiyo.wuena.mysaicoro.MySaicoro
        android:id="@+id/myfview1"
        android:layout_height="match_parent"
        android:layout_width="match_parent"/>

</androidx.constraintlayout.widget.ConstraintLayout>

```

[3] MainActivity.java

```
/*
```

```

-----
    積が奇数の 2 個のさいころ
    Android 4.4 (Kit Kat)
    Copyright (C) K.Niwa 2019.12.12
-----

```

```
*/
```

```
package jp.kiyo.wuena.mysaicoro;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```

import android.os.Bundle;
import android.util.DisplayMetrics;    //<画像の拡大・縮小に必要なライブラリ>
import android.app.Activity;
import android.view.Menu;

public class MainActivity extends AppCompatActivity {

    static int ritsu;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        DisplayMetrics metrics = new DisplayMetrics(); //<端末の情報を取得する>
        getWindowManager().getDefaultDisplay().getMetrics(metrics);
        StringBuilder buffer = new StringBuilder();
        buffer.append("densityDpi (ドット数 / インチ) : " + String.valueOf
(metrics.densityDpi) + "\n");
        ritsu=metrics.densityDpi;
    }
}

```