

[1]MyTorampEng. java

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*3の倍数のトランプカード(英語版)*

*Android 4.1 (Jelly Bean)*

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**package** jp.kiyo.wuena.mytorampeng;

**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** MyTorampEng **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;

**private** Bitmap **bitmap7** = null;

**private** Bitmap **bitmap8** = null;

**private** Bitmap **bitmap9** = null;

**private** Bitmap **bitmap10** = null;

**private** Bitmap **bitmap11** = null;

**private** Bitmap **bitmap12** = null;

```
private Bitmap bitmap13 = null;
private Bitmap bitmap14 = null;
private Bitmap bitmap15 = null;
private Bitmap bitmap16 = null;
private Bitmap bitmap17 = null;
private Bitmap bitmap18 = null;
private Bitmap bitmap19 = null;
private Bitmap bitmap20 = null;
private Bitmap bitmap21 = null;
private Bitmap bitmap22 = null;
private Bitmap bitmap23 = null;
private Bitmap bitmap24 = null;
private Bitmap bitmap25 = null;
private Bitmap bitmap26 = null;
private Bitmap bitmap27 = null;
private Bitmap bitmap28 = null;
private Bitmap bitmap29 = null;
private Bitmap bitmap30 = null;
private Bitmap bitmap31 = null;
private Bitmap bitmap32 = null;
private Bitmap bitmap33 = null;
private Bitmap bitmap34 = null;
private Bitmap bitmap35 = null;
private Bitmap bitmap36 = null;
private Bitmap bitmap37 = null;
private Bitmap bitmap38 = null;
private Bitmap bitmap39 = null;
private Bitmap bitmap40 = null;
private Bitmap bitmap41 = null;
private Bitmap bitmap42 = null;
private Bitmap bitmap43 = null;
private Bitmap bitmap44 = null;
private Bitmap bitmap45 = null;
private Bitmap bitmap46 = null;
private Bitmap bitmap47 = null;
private Bitmap bitmap48 = null;
```

```

private Bitmap bitmap49 = null;
private Bitmap bitmap50 = null;
private Bitmap bitmap51 = null;
private Bitmap bitmap52 = null;

int ct=0;    //実験回数のカウンター
int r;       //トランプカード識別子 (乱数)
int d=0;     //3の倍数のカードを引いたカウンター
int flag=0;  //自動識別子
int syoki=0; //初期化識別子

int width;
int height;

public MyTorampEng(Context context) {
    super(context);
    init(context);
}

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

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

@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;
    int p=95;

```

```

super.onDraw(canvas);
canvas.drawColor(Color.WHITE);
Paint paint = new Paint();
paint.setColor(Color.BLUE);
paint.setAlpha(50);
canvas.drawRect((getWidth()/2-360)+10, (getHeight()/2-600)+10, (getWidth()/2-
360)+710, (getHeight()/2-600)+1190, paint);

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

for (int i=0;i<2;i++) {
    canvas.drawLine((getWidth()/2-360)+10+i, (getHeight()/2-600)+10+i, (getWidth()/2-
360)+10+i, (getHeight()/2-600)+1190-i, paint);
    canvas.drawLine((getWidth()/2-360)+10+i, (getHeight()/2-600)+1190-i, (getWidth()/2-
360)+710-i, (getHeight()/2-600)+1190-i, paint);
    canvas.drawLine((getWidth()/2-360)+710-i, (getHeight()/2-600)+1190-i, (getWidth()/2-
360)+710-i, (getHeight()/2-600)+10+i, paint);
    canvas.drawLine((getWidth()/2-360)+710-i, (getHeight()/2-600)+10+i, (getWidth()/2-
360)+10+i, (getHeight()/2-600)+10+i, paint);
}
paint.setColor(Color.BLUE);
paint.setTextSize(40.0f);
canvas.drawText("【Playing Cards", (getWidth()/2-360)+100-36+10-15, (getHeight()/2-
600)+70, paint);
canvas.drawText("that Are Multiples of Three]", (getWidth()/2-360)+100-36+10-15+90,
(getHeight()/2-600)+70+40, paint);

if (MainActivity.ritsu != 0) {
    a=(float)1.0*320/MainActivity.ritsu;    //----- <画像の拡大・縮小の横の倍率を指定する>
    b=(float)1.0*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 bitmap101 = Bitmap.createBitmap( //-----***
        bitmap1, 0, 0, //-----***
        bitmap1.getWidth(), //-----***
        bitmap1.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap102 = Bitmap.createBitmap( //-----***
        bitmap2, 0, 0, //-----***
        bitmap2.getWidth(), //-----***
        bitmap2.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap103 = Bitmap.createBitmap( //-----***
        bitmap3, 0, 0, //-----***
        bitmap3.getWidth(), //-----***
        bitmap3.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap104 = Bitmap.createBitmap( //-----***
        bitmap4, 0, 0, //-----***
        bitmap4.getWidth(), //-----***
        bitmap4.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap105 = Bitmap.createBitmap( //-----***

```

```

        bitmap5, 0, 0,    //-----***
        bitmap5.getWidth(),    //-----***
        bitmap5.getHeight(),    //-----***
        Mat, true    //-----***
    ); //-----***

```

```

Bitmap bitmap106 = Bitmap.createBitmap(    //-----***
    bitmap6, 0, 0,    //-----***
    bitmap6.getWidth(),    //-----***
    bitmap6.getHeight(),    //-----***
    Mat, true    //-----***
); //-----***

```

```

Bitmap bitmap107 = Bitmap.createBitmap(    //-----***
    bitmap7, 0, 0,    //-----***
    bitmap7.getWidth(),    //-----***
    bitmap7.getHeight(),    //-----***
    Mat, true    //-----***
); //-----***

```

```

Bitmap bitmap108 = Bitmap.createBitmap(    //-----***
    bitmap8, 0, 0,    //-----***
    bitmap8.getWidth(),    //-----***
    bitmap8.getHeight(),    //-----***
    Mat, true    //-----***
); //-----***

```

```

Bitmap bitmap109 = Bitmap.createBitmap(    //-----***
    bitmap9, 0, 0,    //-----***
    bitmap9.getWidth(),    //-----***
    bitmap9.getHeight(),    //-----***
    Mat, true    //-----***
); //-----***

```

```

Bitmap bitmap110 = Bitmap.createBitmap(    //-----***
    bitmap10, 0, 0,    //-----***

```

```

        bitmap10.getWidth(),    //-----***
        bitmap10.getHeight(),  //-----***
        Mat, true              //-----***
    ); //-----***

```

```

Bitmap bitmap111 = Bitmap.createBitmap(    //-----***
    bitmap11, 0, 0,    //-----***
    bitmap11.getWidth(),    //-----***
    bitmap11.getHeight(),  //-----***
    Mat, true          //-----***
); //-----***

```

```

Bitmap bitmap112 = Bitmap.createBitmap(    //-----***
    bitmap12, 0, 0,    //-----***
    bitmap12.getWidth(),    //-----***
    bitmap12.getHeight(),  //-----***
    Mat, true          //-----***
); //-----***

```

```

Bitmap bitmap113 = Bitmap.createBitmap(    //-----***
    bitmap13, 0, 0,    //-----***
    bitmap13.getWidth(),    //-----***
    bitmap13.getHeight(),  //-----***
    Mat, true          //-----***
); //-----***

```

```

Bitmap bitmap114 = Bitmap.createBitmap(    //-----***
    bitmap14, 0, 0,    //-----***
    bitmap14.getWidth(),    //-----***
    bitmap14.getHeight(),  //-----***
    Mat, true          //-----***
); //-----***

```

```

Bitmap bitmap115 = Bitmap.createBitmap(    //-----***
    bitmap15, 0, 0,    //-----***
    bitmap15.getWidth(),    //-----***

```

```

        bitmap15.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap116 = Bitmap.createBitmap( //-----***
        bitmap16, 0, 0, //-----***
        bitmap16.getWidth(), //-----***
        bitmap16.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap117 = Bitmap.createBitmap( //-----***
        bitmap17, 0, 0, //-----***
        bitmap17.getWidth(), //-----***
        bitmap17.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap118 = Bitmap.createBitmap( //-----***
        bitmap18, 0, 0, //-----***
        bitmap18.getWidth(), //-----***
        bitmap18.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap119 = Bitmap.createBitmap( //-----***
        bitmap19, 0, 0, //-----***
        bitmap19.getWidth(), //-----***
        bitmap19.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap120 = Bitmap.createBitmap( //-----***
        bitmap20, 0, 0, //-----***
        bitmap20.getWidth(), //-----***
        bitmap20.getHeight(), //-----***

```

```

        Mat, true //-----***
    ); //-----***

    Bitmap bitmap121 = Bitmap.createBitmap( //-----***
        bitmap21, 0, 0, //-----***
        bitmap21.getWidth(), //-----***
        bitmap21.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap122 = Bitmap.createBitmap( //-----***
        bitmap22, 0, 0, //-----***
        bitmap22.getWidth(), //-----***
        bitmap22.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap123 = Bitmap.createBitmap( //-----***
        bitmap23, 0, 0, //-----***
        bitmap23.getWidth(), //-----***
        bitmap23.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap124 = Bitmap.createBitmap( //-----***
        bitmap24, 0, 0, //-----***
        bitmap24.getWidth(), //-----***
        bitmap24.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap125 = Bitmap.createBitmap( //-----***
        bitmap25, 0, 0, //-----***
        bitmap25.getWidth(), //-----***
        bitmap25.getHeight(), //-----***
        Mat, true //-----***

```

```

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

Bitmap bitmap126 = Bitmap.createBitmap( //-----***
    bitmap26, 0, 0, //-----***
    bitmap26.getWidth(), //-----***
    bitmap26.getHeight(), //-----***
    Mat, true //-----***
); //-----***

Bitmap bitmap127 = Bitmap.createBitmap( //-----***
    bitmap27, 0, 0, //-----***
    bitmap27.getWidth(), //-----***
    bitmap27.getHeight(), //-----***
    Mat, true //-----***
); //-----***

Bitmap bitmap128 = Bitmap.createBitmap( //-----***
    bitmap28, 0, 0, //-----***
    bitmap28.getWidth(), //-----***
    bitmap28.getHeight(), //-----***
    Mat, true //-----***
); //-----***

Bitmap bitmap129 = Bitmap.createBitmap( //-----***
    bitmap29, 0, 0, //-----***
    bitmap29.getWidth(), //-----***
    bitmap29.getHeight(), //-----***
    Mat, true //-----***
); //-----***

Bitmap bitmap130 = Bitmap.createBitmap( //-----***
    bitmap30, 0, 0, //-----***
    bitmap30.getWidth(), //-----***
    bitmap30.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap131 = Bitmap.createBitmap( //-----***
    bitmap31, 0, 0, //-----***
    bitmap31.getWidth(), //-----***
    bitmap31.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap132 = Bitmap.createBitmap( //-----***
    bitmap32, 0, 0, //-----***
    bitmap32.getWidth(), //-----***
    bitmap32.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap133 = Bitmap.createBitmap( //-----***
    bitmap33, 0, 0, //-----***
    bitmap33.getWidth(), //-----***
    bitmap33.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap134 = Bitmap.createBitmap( //-----***
    bitmap34, 0, 0, //-----***
    bitmap34.getWidth(), //-----***
    bitmap34.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap135 = Bitmap.createBitmap( //-----***
    bitmap35, 0, 0, //-----***
    bitmap35.getWidth(), //-----***
    bitmap35.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap136 = Bitmap.createBitmap( //-----***
    bitmap36, 0, 0, //-----***
    bitmap36.getWidth(), //-----***
    bitmap36.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap137 = Bitmap.createBitmap( //-----***
    bitmap37, 0, 0, //-----***
    bitmap37.getWidth(), //-----***
    bitmap37.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap138 = Bitmap.createBitmap( //-----***
    bitmap38, 0, 0, //-----***
    bitmap38.getWidth(), //-----***
    bitmap38.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap139 = Bitmap.createBitmap( //-----***
    bitmap39, 0, 0, //-----***
    bitmap39.getWidth(), //-----***
    bitmap39.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap140 = Bitmap.createBitmap( //-----***
    bitmap40, 0, 0, //-----***
    bitmap40.getWidth(), //-----***
    bitmap40.getHeight(), //-----***
    Mat, true //-----***
); //-----***

```

```

Bitmap bitmap141 = Bitmap.createBitmap( //-----***

```

```

        bitmap41, 0, 0, //-----***
        bitmap41.getWidth(), //-----***
        bitmap41.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

```

```

    Bitmap bitmap142 = Bitmap.createBitmap( //-----***
        bitmap42, 0, 0, //-----***
        bitmap42.getWidth(), //-----***
        bitmap42.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

```

```

    Bitmap bitmap143 = Bitmap.createBitmap( //-----***
        bitmap43, 0, 0, //-----***
        bitmap43.getWidth(), //-----***
        bitmap43.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

```

```

    Bitmap bitmap144 = Bitmap.createBitmap( //-----***
        bitmap44, 0, 0, //-----***
        bitmap44.getWidth(), //-----***
        bitmap44.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

```

```

    Bitmap bitmap145 = Bitmap.createBitmap( //-----***
        bitmap45, 0, 0, //-----***
        bitmap45.getWidth(), //-----***
        bitmap45.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

```

```

    Bitmap bitmap146 = Bitmap.createBitmap( //-----***
        bitmap46, 0, 0, //-----***

```

```

        bitmap46.getWidth(),    //-----***
        bitmap46.getHeight(),   //-----***
        Mat, true               //-----***
    ); //-----***

```

```

Bitmap bitmap147 = Bitmap.createBitmap(    //-----***
    bitmap47, 0, 0,    //-----***
    bitmap47.getWidth(),    //-----***
    bitmap47.getHeight(),   //-----***
    Mat, true           //-----***
); //-----***

```

```

Bitmap bitmap148 = Bitmap.createBitmap(    //-----***
    bitmap48, 0, 0,    //-----***
    bitmap48.getWidth(),    //-----***
    bitmap48.getHeight(),   //-----***
    Mat, true           //-----***
); //-----***

```

```

Bitmap bitmap149 = Bitmap.createBitmap(    //-----***
    bitmap49, 0, 0,    //-----***
    bitmap49.getWidth(),    //-----***
    bitmap49.getHeight(),   //-----***
    Mat, true           //-----***
); //-----***

```

```

Bitmap bitmap150 = Bitmap.createBitmap(    //-----***
    bitmap50, 0, 0,    //-----***
    bitmap50.getWidth(),    //-----***
    bitmap50.getHeight(),   //-----***
    Mat, true           //-----***
); //-----***

```

```

Bitmap bitmap151 = Bitmap.createBitmap(    //-----***
    bitmap51, 0, 0,    //-----***
    bitmap51.getWidth(),    //-----***

```

```

        bitmap51.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    Bitmap bitmap152 = Bitmap.createBitmap( //-----***
        bitmap52, 0, 0, //-----***
        bitmap52.getWidth(), //-----***
        bitmap52.getHeight(), //-----***
        Mat, true //-----***
    ); //-----***

    if (bitmap101 != null && bitmap102 != null && bitmap103 != null && bitmap104 != null
    && bitmap105 != null && bitmap106 != null && bitmap107 != null && bitmap108 != null &&
    bitmap109 != null && bitmap110 != null && bitmap111 != null && bitmap112 != null &&
    bitmap113 != null && bitmap114 != null && bitmap115 != null && bitmap116 != null &&
    bitmap117 != null && bitmap118 != null && bitmap119 != null && bitmap120 != null &&
    bitmap121 != null && bitmap122 != null && bitmap123 != null && bitmap124 != null &&
    bitmap125 != null && bitmap126 != null && bitmap127 != null && bitmap128 != null &&
    bitmap129 != null && bitmap130 != null && bitmap131 != null && bitmap132 != null &&
    bitmap133 != null && bitmap134 != null && bitmap135 != null && bitmap136 != null &&
    bitmap137 != null && bitmap138 != null && bitmap139 != null && bitmap140 != null &&
    bitmap141 != null && bitmap142 != null && bitmap143 != null && bitmap144 != null &&
    bitmap145 != null && bitmap146 != null && bitmap147 != null && bitmap148 != null &&
    bitmap149 != null && bitmap150 != null && bitmap151 != null && bitmap152 != null) {

        ct++;

        r=(int) (1+52*Math.random());

        if (r==1) {
            canvas.drawBitmap(bitmap101, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==2) {
            canvas.drawBitmap(bitmap102, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);

```

```

    }
    else if (r==3) {
        canvas.drawBitmap(bitmap103, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==4) {
        canvas.drawBitmap(bitmap104, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==5) {
        canvas.drawBitmap(bitmap105, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==6) {
        canvas.drawBitmap(bitmap106, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==7) {
        canvas.drawBitmap(bitmap107, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==8) {
        canvas.drawBitmap(bitmap108, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==9) {
        canvas.drawBitmap(bitmap109, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==10) {
        canvas.drawBitmap(bitmap110, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }

```

```

        else if (r==11) {
            canvas.drawBitmap(bitmap111, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==12) {
            canvas.drawBitmap(bitmap112, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
            d++;
        }
        else if (r==13) {
            canvas.drawBitmap(bitmap113, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==14) {
            canvas.drawBitmap(bitmap114, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==15) {
            canvas.drawBitmap(bitmap115, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==16) {
            canvas.drawBitmap(bitmap116, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
            d++;
        }
        else if (r==17) {
            canvas.drawBitmap(bitmap117, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==18) {
            canvas.drawBitmap(bitmap118, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==19) {
            canvas.drawBitmap(bitmap119, (getWidth()/2-360)+210-10+p, (getHeight()/2-

```

```

600)+150-10, paint);
        d++;
    }
    else if (r==20) {
        canvas.drawBitmap(bitmap120, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==21) {
        canvas.drawBitmap(bitmap121, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==22) {
        canvas.drawBitmap(bitmap122, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==23) {
        canvas.drawBitmap(bitmap123, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==24) {
        canvas.drawBitmap(bitmap124, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==25) {
        canvas.drawBitmap(bitmap125, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==26) {
        canvas.drawBitmap(bitmap126, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==27) {
        canvas.drawBitmap(bitmap127, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);

```

```

    }
    else if (r==28) {
        canvas.drawBitmap(bitmap128, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==29) {
        canvas.drawBitmap(bitmap129, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==30) {
        canvas.drawBitmap(bitmap130, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==31) {
        canvas.drawBitmap(bitmap131, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==32) {
        canvas.drawBitmap(bitmap132, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==33) {
        canvas.drawBitmap(bitmap133, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==34) {
        canvas.drawBitmap(bitmap134, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==35) {
        canvas.drawBitmap(bitmap135, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
}

```

```

        else if (r==36) {
            canvas.drawBitmap(bitmap136, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==37) {
            canvas.drawBitmap(bitmap137, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==38) {
            canvas.drawBitmap(bitmap138, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
            d++;
        }
        else if (r==39) {
            canvas.drawBitmap(bitmap139, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==40) {
            canvas.drawBitmap(bitmap140, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==41) {
            canvas.drawBitmap(bitmap141, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==42) {
            canvas.drawBitmap(bitmap142, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
            d++;
        }
        else if (r==43) {
            canvas.drawBitmap(bitmap143, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        }
        else if (r==44) {
            canvas.drawBitmap(bitmap144, (getWidth()/2-360)+210-10+p, (getHeight()/2-

```

```

600)+150-10, paint);
    }
    else if (r==45) {
        canvas.drawBitmap(bitmap145, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==46) {
        canvas.drawBitmap(bitmap146, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==47) {
        canvas.drawBitmap(bitmap147, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==48) {
        canvas.drawBitmap(bitmap148, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==49) {
        canvas.drawBitmap(bitmap149, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==50) {
        canvas.drawBitmap(bitmap150, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
    }
    else if (r==51) {
        canvas.drawBitmap(bitmap151, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);
        d++;
    }
    else if (r==52) {
        canvas.drawBitmap(bitmap152, (getWidth()/2-360)+210-10+p, (getHeight()/2-
600)+150-10, paint);

```

```

    }
}

paint.setColor(Color.BLACK);
paint.setTextSize(40.0f);
canvas.drawText("Number of cards ", (getWidth()/2-360)+40-10, (getHeight()/2-600)+380+10, paint);
canvas.drawText("that are multiples of 3 = "+d, (getWidth()/2-360)+40+80-10, (getHeight()/2-600)+410+10+5, paint);
canvas.drawText("Number of all cards drawn = "+ct, (getWidth()/2-360)+40-10, (getHeight()/2-600)+470+10, paint);
paint.setColor(Color.BLUE);
canvas.drawText("Percentage of cards", (getWidth()/2-360)+30, (getHeight()/2-600)+530+10, paint);
canvas.drawText("drawn in multiples of 3", (getWidth()/2-360)+30+80, (getHeight()/2-600)+560+10+5, paint);
canvas.drawText(" = "+((float)(d)/(float)(ct)), (getWidth()/2-360)+240+150, (getHeight()/2-600)+600+10, paint);

paint.setColor(Color.BLACK);
canvas.drawText("Theoretical percentage of drawing", (getWidth()/2-360)+30, (getHeight()/2-600)+670, paint);
canvas.drawText(" cards that are multiples of 3", (getWidth()/2-360)+30+80+40, (getHeight()/2-600)+700+5, paint);
canvas.drawText(" = 16/52 = 0.30769231", (getWidth()/2-360)+30+55+150, (getHeight()/2-600)+750, paint);

paint.setColor(Color.BLACK);
paint.setTextSize(30.0f);
canvas.drawText("■Let's observe how percentage of cards drawn", (getWidth()/2-360)+50-20, (getHeight()/2-600)+810, paint);
canvas.drawText(" in multiples of 3 approaches 0.30769231.", (getWidth()/2-360)+50-20, (getHeight()/2-600)+845, paint);

canvas.drawText("Touch the screen five times to activate.", (getWidth()/2-360)+50, (getHeight()/2-600)+950, paint);

```

```

        canvas.drawText("Touch the screen again to stop the auto.", (getWidth()/2-360)+50,
(getHeight()/2-600)+990, paint);
        canvas.drawText("If you touch it further, it will be initialized.", (getWidth()/2-
360)+50, (getHeight()/2-600)+1030, paint);
        canvas.drawText("When the screen goes dark, touch the title bar !", (getWidth()/2-
360)+50, (getHeight()/2-600)+1070, paint);

        paint.setColor(Color.BLUE);
        paint.setTextSize(30.0f);
        canvas.drawText("Copyright(C) Sohun 2021.9.25", (getWidth()/2-360)+150+5,
(getHeight()/2-600)+1130, paint);

        if (flag>=5) {
            invalidate();
        }
    }
}

```

```

private void init(Context context) {
    Resources res = context.getResources();

    bitmap1 = BitmapFactory.decodeResource(res, R.drawable.d01);
    bitmap2 = BitmapFactory.decodeResource(res, R.drawable.d02);
    bitmap3 = BitmapFactory.decodeResource(res, R.drawable.d03);
    bitmap4 = BitmapFactory.decodeResource(res, R.drawable.d04);
    bitmap5 = BitmapFactory.decodeResource(res, R.drawable.d05);
    bitmap6 = BitmapFactory.decodeResource(res, R.drawable.d06);
    bitmap7 = BitmapFactory.decodeResource(res, R.drawable.d07);
    bitmap8 = BitmapFactory.decodeResource(res, R.drawable.d08);
    bitmap9 = BitmapFactory.decodeResource(res, R.drawable.d09);
    bitmap10 = BitmapFactory.decodeResource(res, R.drawable.d10);
    bitmap11 = BitmapFactory.decodeResource(res, R.drawable.d11);
    bitmap12 = BitmapFactory.decodeResource(res, R.drawable.d12);
    bitmap13 = BitmapFactory.decodeResource(res, R.drawable.d13);

    bitmap14 = BitmapFactory.decodeResource(res, R.drawable.h01);
    bitmap15 = BitmapFactory.decodeResource(res, R.drawable.h02);
    bitmap16 = BitmapFactory.decodeResource(res, R.drawable.h03);
}

```

```
bitmap17 = BitmapFactory.decodeResource(res, R.drawable.h04);
bitmap18 = BitmapFactory.decodeResource(res, R.drawable.h05);
bitmap19 = BitmapFactory.decodeResource(res, R.drawable.h06);
bitmap20 = BitmapFactory.decodeResource(res, R.drawable.h07);
bitmap21 = BitmapFactory.decodeResource(res, R.drawable.h08);
bitmap22 = BitmapFactory.decodeResource(res, R.drawable.h09);
bitmap23 = BitmapFactory.decodeResource(res, R.drawable.h10);
bitmap24 = BitmapFactory.decodeResource(res, R.drawable.h11);
bitmap25 = BitmapFactory.decodeResource(res, R.drawable.h12);
bitmap26 = BitmapFactory.decodeResource(res, R.drawable.h13);
```

```
bitmap27 = BitmapFactory.decodeResource(res, R.drawable.m01);
bitmap28 = BitmapFactory.decodeResource(res, R.drawable.m02);
bitmap29 = BitmapFactory.decodeResource(res, R.drawable.m03);
bitmap30 = BitmapFactory.decodeResource(res, R.drawable.m04);
bitmap31 = BitmapFactory.decodeResource(res, R.drawable.m05);
bitmap32 = BitmapFactory.decodeResource(res, R.drawable.m06);
bitmap33 = BitmapFactory.decodeResource(res, R.drawable.m07);
bitmap34 = BitmapFactory.decodeResource(res, R.drawable.m08);
bitmap35 = BitmapFactory.decodeResource(res, R.drawable.m09);
bitmap36 = BitmapFactory.decodeResource(res, R.drawable.m10);
bitmap37 = BitmapFactory.decodeResource(res, R.drawable.m11);
bitmap38 = BitmapFactory.decodeResource(res, R.drawable.m12);
bitmap39 = BitmapFactory.decodeResource(res, R.drawable.m13);
```

```
bitmap40 = BitmapFactory.decodeResource(res, R.drawable.s01);
bitmap41 = BitmapFactory.decodeResource(res, R.drawable.s02);
bitmap42 = BitmapFactory.decodeResource(res, R.drawable.s03);
bitmap43 = BitmapFactory.decodeResource(res, R.drawable.s04);
bitmap44 = BitmapFactory.decodeResource(res, R.drawable.s05);
bitmap45 = BitmapFactory.decodeResource(res, R.drawable.s06);
bitmap46 = BitmapFactory.decodeResource(res, R.drawable.s07);
bitmap47 = BitmapFactory.decodeResource(res, R.drawable.s08);
bitmap48 = BitmapFactory.decodeResource(res, R.drawable.s09);
bitmap49 = BitmapFactory.decodeResource(res, R.drawable.s10);
bitmap50 = BitmapFactory.decodeResource(res, R.drawable.s11);
```

```

        bitmap51 = BitmapFactory.decodeResource(res, R.drawable.s12);
        bitmap52 = BitmapFactory.decodeResource(res, R.drawable.s13);

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

    @Override
    public boolean onTouchEvent(MotionEvent event) {
        flag = flag+1;
        flag = flag % 6;

        syoki=syoki+1;
        if (syoki>6) {
            ct=0;        //実験回数カウンター
            d=0;        //3の倍数のカードを引いたカウンター
            flag=0;      //自動識別子
            syoki=0;     //初期化識別子
        }

        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.mytorampeng.MyTorampEng
```

```
    android:id="@+id/myfview1"
    android:layout_height="match_parent"
    android:layout_width="match_parent"/>
```

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

[3]MainActivity.java

```
/*
```

---

3の倍数のトランプカード(英語版)

Android 4.1 (Jelly Bean)

Copyright (C) K. Niwa 2021. 2. 23

---

```
*/
```

```
package jp.kiyo.wuena.mytorampeng;
```

```
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;
    }
}

```