Ivan Lakovic

```
Det[{{2, 2, 3}, {6, 5, 6}, {1, 1, 2}}]
```

-1

```
Inverse[{{2, 2, 3}, {6, 5, 6}, {1, 1, 2}}]
```

{{-4, 1, 3}, {6, -1, -6}, {-1, 0, 2}}

```
Det[{{-4, 1, 3}, {6, -1, -6}, {-1, 0, 2}}]
```

-1

```
LUDecomposition[{{2, 2, 3}, {6, 5, 6}, {1, 1, 2}}]
```
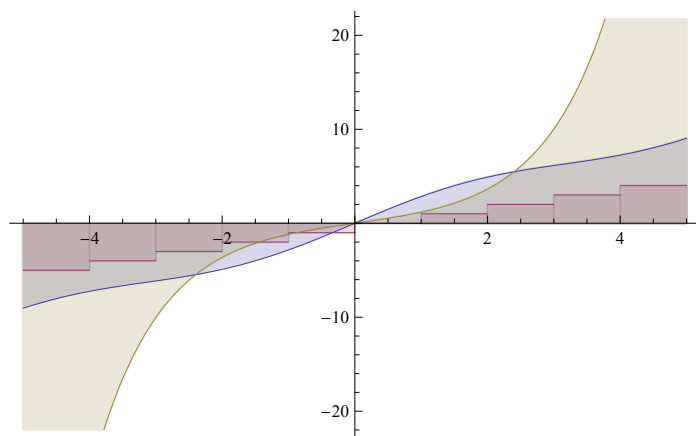
{{{1, 1, 2}, {6, -1, -6}, {2, 0, -1}}, {3, 2, 1}, 1}

```
Orthogonalize[{{2, 2, 3}, {6, 5, 6}, {1, 1, 2}}]
```

$$\left\{\left\{\frac{2}{\sqrt{17}}, \frac{2}{\sqrt{17}}, \frac{3}{\sqrt{17}}\right\}, \left\{\frac{22}{7\sqrt{17}}, \frac{5}{7\sqrt{17}}, -\frac{18}{7\sqrt{17}}\right\}, \left\{\frac{3}{7}, -\frac{6}{7}, \frac{2}{7}\right\}\right\}$$

$$\mathbf{Det}\left[\left\{\left\{\frac{2}{\sqrt{17}}, \frac{2}{\sqrt{17}}, \frac{3}{\sqrt{17}}\right\}, \left\{\frac{22}{7\sqrt{17}}, \frac{5}{7\sqrt{17}}, -\frac{18}{7\sqrt{17}}\right\}, \left\{\frac{3}{7}, -\frac{6}{7}, \frac{2}{7}\right\}\right\}\right]$$

-1

```
Plot[{Sin[x] + 2 x, Floor[x], Sinh[x]}, {x, -5, 5}, Filling → Axis]
```
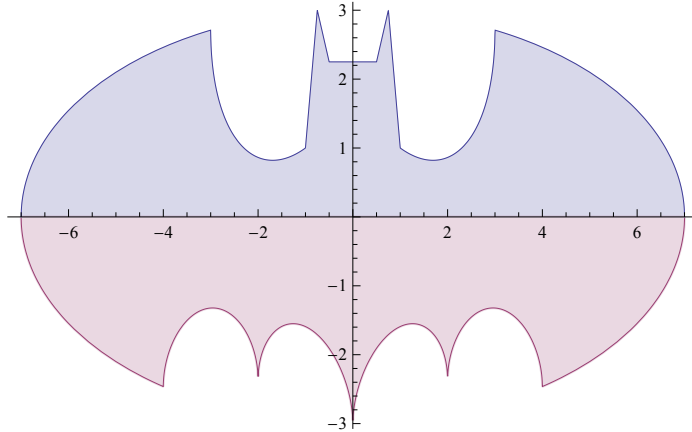


```
Plot3D[{-2, Sin[x], x}, {x, -4, 4}, {y, -2, 2},
  PlotStyle → Directive[RGBColor[0.27, 1., 0.4], Opacity[0.878]]]
```
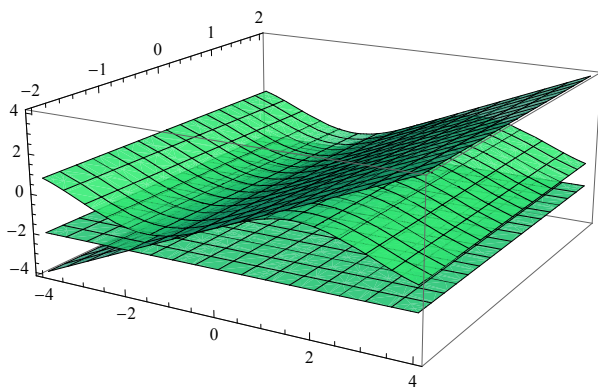
```
Plot[{With[{
    w = 3 * Sqrt[1 - (x / 7) ^2],
    l = (6 / 7) * Sqrt[10] + (3 + x) / 2 - (3 / 7) * Sqrt[10] * Sqrt[4 - (x + 1) ^2],
    h = (1 / 2) *
        (3 * (Abs[x - 1 / 2] + Abs[x + 1 / 2] + 6) - 11 * (Abs[x - 3 / 4] + Abs[x + 3 / 4])),
    r = (6 / 7) * Sqrt[10] + (3 - x) / 2 - (3 / 7) * Sqrt[10] * Sqrt[4 - (x - 1) ^2]},
   w + (l - w) * UnitStep[x + 3] + (h - l) * UnitStep[x + 1] +
    (r - h) * UnitStep[x - 1] + (w - r) * UnitStep[x - 3]],
  (1 / 2) * (3 * Sqrt[1 - (x / 7) ^2] + Sqrt[1 - (Abs[Abs[x] - 2] - 1) ^2] + Abs[x / 2] -
      ((3 * Sqrt[33] - 7) / 112) * x^2 - 3) * ((x + 4) / Abs[x + 4] - (x - 4) / Abs[x - 4]) -
   3 * Sqrt[1 - (x / 7) ^2]}, {x, -7, 7}, Filling → Axis]
```


Formule za znak preuzete su sa http : // mathworld.wolfram.com / BatmanCurve.html

DSolve[y'[x] == y[x] * e^x, y[x], x]

$$\left\{\left\{y[x] \rightarrow e^{\frac{e^x}{\text{Log}[e]}} C[1]\right\}\right\}$$

$$\left\{\left\{y[x] \rightarrow e^{\frac{e^x}{\text{Log}[e]}} C[1]\right\}\right\}[[1, 1, 2]]$$

$$e^{\frac{e^x}{\text{Log}[e]}} C[1]$$

DSolve[y'[x] == y[x] + e^x, y[x], x]

$$\left\{\left\{y[x] \rightarrow e^x C[1] + \frac{e^x}{-1 + \text{Log}[e]}\right\}\right\}$$

$$\left\{\left\{y[x] \rightarrow e^x C[1] + \frac{e^x}{-1 + \text{Log}[e]}\right\}\right\}[[1, 1, 2]]$$

$$e^x C[1] + \frac{e^x}{-1 + \text{Log}[e]}$$