

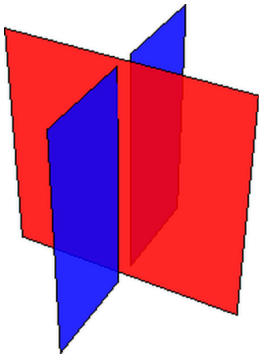
Pensieve header: A collection of 4-dimensional hardware pieces, based on pensieve://2013-12/.

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\2014-01\\4DKT"]
```

```
C:\\drorbn\\AcademicPensieve\\2014-01\\4DKT
```

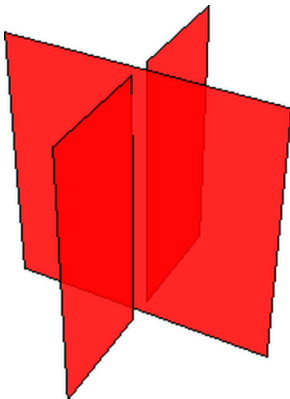
```
MakeImage["4DHardware-01",
```

```
Graphics3D[{
  Opacity[0.85],
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],
  Glow[Blue],
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],
  Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}]
}, Lighting -> None, Boxed -> False],
ImageSize -> 300]
```

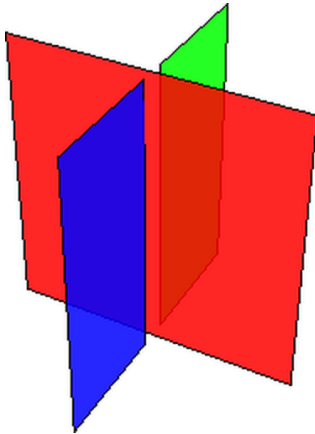


```
MakeImage["4DColouring-01",
```

```
Graphics3D[{
  Opacity[0.85],
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],
  Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}]
}, Lighting -> None, Boxed -> False],
ImageSize -> 300]
```



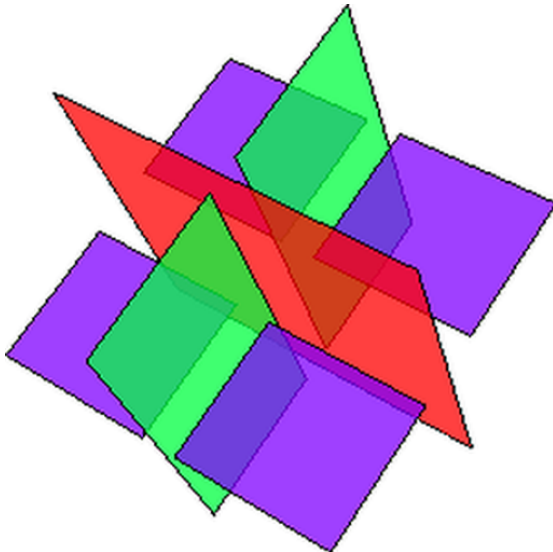
```
MakeImage["4DColouring-02",  
Graphics3D[  
  Opacity[0.85],  
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],  
  Glow[Blue], Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],  
  Glow[Green], Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}]  
], Lighting -> None, Boxed -> False],  
ImageSize -> 300]
```



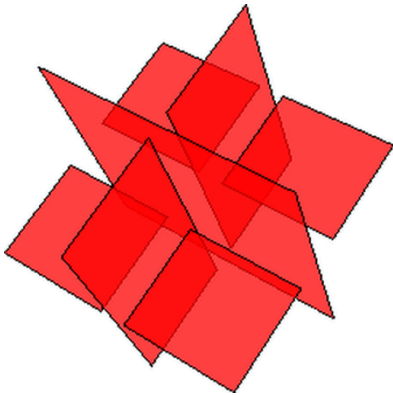
```

MakeImage["4DHardware-02",
Graphics3D[{
  Opacity[0.75],
  Glow[Hue[0]], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],
  Glow[Hue[3/8]],
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],
  Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}],
  Glow[Hue[3/4]],
  Polygon[{{1, 10, 0}, {1, 2, 0}, {10, 2, 0}, {10, 10, 0}}],
  Polygon[{{-1, 10, 0}, {-1, 2, 0}, {-10, 2, 0}, {-10, 10, 0}}],
  Polygon[{{-1, -10, 0}, {-1, -2, 0}, {-10, -2, 0}, {-10, -10, 0}}],
  Polygon[{{1, -10, 0}, {1, -2, 0}, {10, -2, 0}, {10, -10, 0}}]
}, Lighting -> None, Boxed -> False, ViewPoint -> {1.46373, -0.920402, 2.90867},
ViewVertical -> {-0.0784286, 0.473962, 0.877045}],
ImageSize -> 300]

```



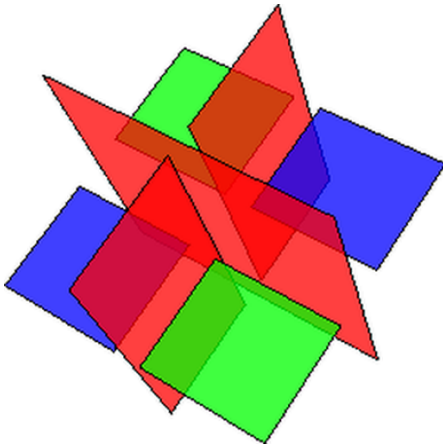
```
MakeImage["4DColouring-03",  
Graphics3D[  
  Opacity[0.75],  
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],  
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],  
  Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}],  
  Polygon[{{1, 10, 0}, {1, 2, 0}, {10, 2, 0}, {10, 10, 0}}],  
  Polygon[{{-1, 10, 0}, {-1, 2, 0}, {-10, 2, 0}, {-10, 10, 0}}],  
  Polygon[{{-1, -10, 0}, {-1, -2, 0}, {-10, -2, 0}, {-10, -10, 0}}],  
  Polygon[{{1, -10, 0}, {1, -2, 0}, {10, -2, 0}, {10, -10, 0}}]  
], Lighting -> None, Boxed -> False, ViewPoint -> {1.46373, -0.920402, 2.90867},  
ViewVertical -> {-0.0784286, 0.473962, 0.877045}],  
ImageSize -> 300]
```



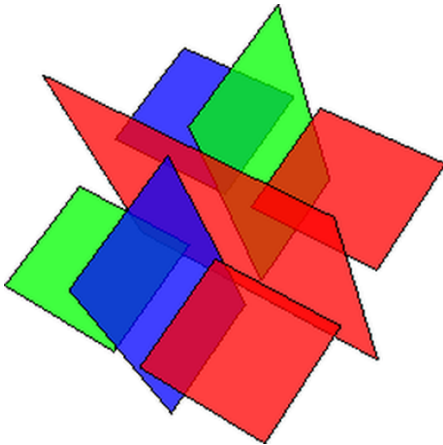
```

MakeImage["4DColouring-04",
Graphics3D[{
  Opacity[0.75],
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],
  Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}],
  Glow[Blue], Polygon[{{1, 10, 0}, {1, 2, 0}, {10, 2, 0}, {10, 10, 0}}],
  Glow[Green], Polygon[{{-1, 10, 0}, {-1, 2, 0}, {-10, 2, 0}, {-10, 10, 0}}],
  Glow[Blue], Polygon[{{-1, -10, 0}, {-1, -2, 0}, {-10, -2, 0}, {-10, -10, 0}}],
  Glow[Green], Polygon[{{1, -10, 0}, {1, -2, 0}, {10, -2, 0}, {10, -10, 0}}]
}, Lighting -> None, Boxed -> False, ViewPoint -> {1.46373, -0.920402, 2.90867},
ViewVertical -> {-0.0784286, 0.473962, 0.877045}],
ImageSize -> 300]

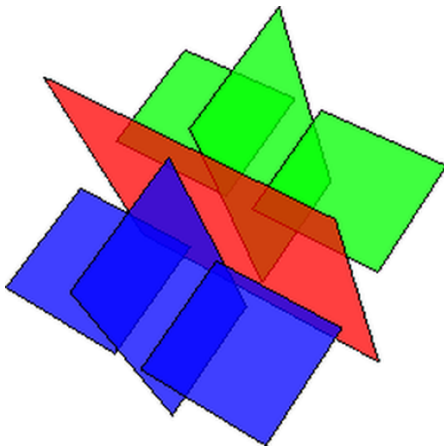
```



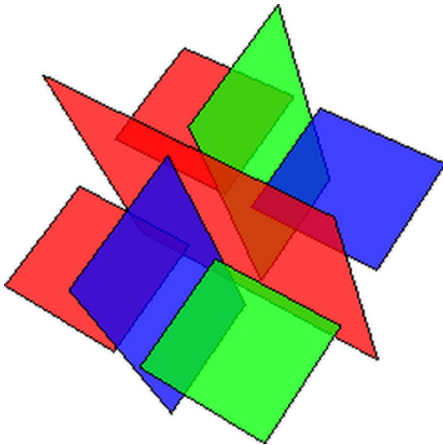
```
MakeImage["4DColouring-05",  
Graphics3D[  
  Opacity[0.75],  
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],  
  Glow[Blue], Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],  
  Glow[Green], Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}],  
  Glow[Red], Polygon[{{1, 10, 0}, {1, 2, 0}, {10, 2, 0}, {10, 10, 0}}],  
  Glow[Blue], Polygon[{{-1, 10, 0}, {-1, 2, 0}, {-10, 2, 0}, {-10, 10, 0}}],  
  Glow[Green], Polygon[{{-1, -10, 0}, {-1, -2, 0}, {-10, -2, 0}, {-10, -10, 0}}],  
  Glow[Red], Polygon[{{1, -10, 0}, {1, -2, 0}, {10, -2, 0}, {10, -10, 0}}]  
], Lighting → None, Boxed → False, ViewPoint → {1.46373, -0.920402, 2.90867},  
ViewVertical → {-0.0784286, 0.473962, 0.877045}],  
ImageSize → 300]
```



```
MakeImage["4DColouring-06",  
Graphics3D[  
  Opacity[0.75],  
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],  
  Glow[Blue], Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],  
  Glow[Green], Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}],  
  Glow[Green], Polygon[{{1, 10, 0}, {1, 2, 0}, {10, 2, 0}, {10, 10, 0}}],  
  Glow[Green], Polygon[{{-1, 10, 0}, {-1, 2, 0}, {-10, 2, 0}, {-10, 10, 0}}],  
  Glow[Blue], Polygon[{{-1, -10, 0}, {-1, -2, 0}, {-10, -2, 0}, {-10, -10, 0}}],  
  Glow[Blue], Polygon[{{1, -10, 0}, {1, -2, 0}, {10, -2, 0}, {10, -10, 0}}]  
], Lighting → None, Boxed → False, ViewPoint → {1.46373, -0.920402, 2.90867},  
ViewVertical → {-0.0784286, 0.473962, 0.877045}],  
ImageSize → 300]
```



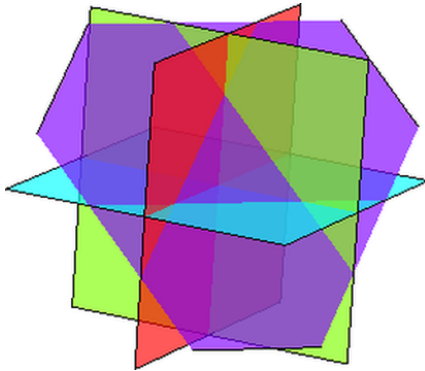
```
MakeImage["4DColouring-07",  
Graphics3D[  
  Opacity[0.75],  
  Glow[Red], Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],  
  Glow[Blue], Polygon[{{0, -10, -10}, {0, -10, 10}, {0, -1, 10}, {0, -1, -10}}],  
  Glow[Green], Polygon[{{0, 10, -10}, {0, 10, 10}, {0, 1, 10}, {0, 1, -10}}],  
  Glow[Blue], Polygon[{{1, 10, 0}, {1, 2, 0}, {10, 2, 0}, {10, 10, 0}}],  
  Glow[Red], Polygon[{{-1, 10, 0}, {-1, 2, 0}, {-10, 2, 0}, {-10, 10, 0}}],  
  Glow[Red], Polygon[{{-1, -10, 0}, {-1, -2, 0}, {-10, -2, 0}, {-10, -10, 0}}],  
  Glow[Green], Polygon[{{1, -10, 0}, {1, -2, 0}, {10, -2, 0}, {10, -10, 0}}]  
], Lighting -> None, Boxed -> False, ViewPoint -> {1.46373, -0.920402, 2.90867},  
ViewVertical -> {-0.0784286, 0.473962, 0.877045}],  
ImageSize -> 300]
```




```

MakeImage["4DRelation-01",
Graphics3D[{
  Opacity[0.65],
  Glow[Hue[0 / 4]],
  Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],
  Glow[Hue[1 / 4]],
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, 10, 10}, {0, 10, -10}}],
  Glow[Hue[2 / 4]],
  Polygon[{{-10, 10, 0}, {-10, -10, 0}, {10, -10, 0}, {10, 10, 0}}],
  Glow[Hue[3 / 4]],
  Polygon[10 {{2, -1, -1}, {-1, 2, -1}, {-1, -1, 2}} + 2 {1, 1, 1}]
},
Boxed → False, ImageSize → {390.`, Automatic}, Lighting → None, PlotRange → 10,
ViewPoint → {24.7, 12.5, 7.45}, ViewVertical → {-0.072, -0.109, 0.991}
],
ImageSize → 300]

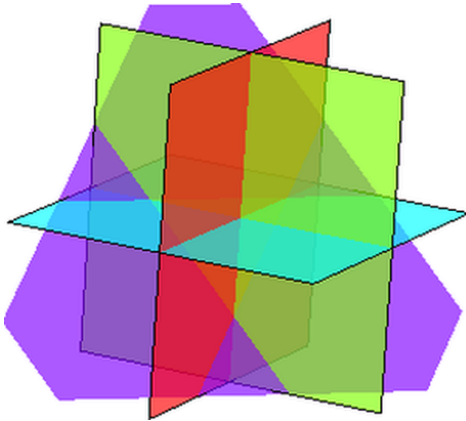
```



```

MakeImage["4DRelation-02",
Graphics3D[{
  Opacity[0.65],
  Glow[Hue[0 / 4]],
  Polygon[{{-10, 0, -10}, {-10, 0, 10}, {10, 0, 10}, {10, 0, -10}}],
  Glow[Hue[1 / 4]],
  Polygon[{{0, -10, -10}, {0, -10, 10}, {0, 10, 10}, {0, 10, -10}}],
  Glow[Hue[2 / 4]],
  Polygon[{{-10, 10, 0}, {-10, -10, 0}, {10, -10, 0}, {10, 10, 0}}],
  Glow[Hue[3 / 4]],
  Polygon[10 {{2, -1, -1}, {-1, 2, -1}, {-1, -1, 2}} - 2 {1, 1, 1}]
},
Boxed → False, ImageSize → {390.`, Automatic}, Lighting → None, PlotRange → 10,
ViewPoint → {24.7, 12.5, 7.45}, ViewVertical → {-0.072, -0.109, 0.991}
],
ImageSize → 300]

```



```

MakeImage["4DHardware-03",
  ParametricPlot3D[
    {t Cos[α], t Sin[2 α] / 2, 2 (1 - t)},
    {α,  $\frac{\pi}{2} + \frac{\pi}{24}$ ,  $\frac{5\pi}{2} - \frac{\pi}{24}$ }, {t, 0, 1},
    ColorFunction → Function[{x, y, z, α, t}, Glow[Hue[ $\frac{3}{8} (1 + \sin[\alpha]) t$ ]]],
    ColorFunctionScaling → False,
    Lighting → None, Boxed → False, Axes → None, Mesh → False,
    PlotStyle → Opacity[0.8], ViewPoint → {-0.44517, 3.0704, -1.33457},
    ViewVertical → {-0.118566, 1.86637, 0.666909}
  ],
  ImageSize → 300]

```

