KETpic で楽々 TEX グラフ

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KETpic の最新機能 (その 1) — 作表機能

LaTeX の従来の作表コマンドを用いた場合

	$ax^2+bx+c>0$	$ax^2+bx+c<0$
$D>0$	$x<\alpha,\ \beta<x$	$\alpha<x<\beta$
$D=0$	$\alpha(=\beta)$ を除く実数全体	解なし
$D<0$	実数全体	解なし

KETpic の作表機能を用いた場合

<table>
<tr><td></td><td>$ax^2+bx+c>0$</td><td>$ax^2+bx+c<0$</td></tr>
<tr><td>$D>0$</td><td>$x<\alpha,\ \beta<x$</td><td>$\alpha<x<\beta$</td></tr>
<tr><td>$D=0$</td><td>$\alpha(=\beta)$ を除く実数全体</td><td rowspan="2">解なし</td></tr>
<tr><td>$D<0$</td><td>実数全体</td></tr>
</table>

```
Tmp1=list(20,60,60);
Tmp2=list(10,10,[10,1,3],10);
T1=Tabledata([-1,-1],Tmp1,Tmp2);

Openfile('e:/table.tex');
 Beginpicture('1mm');
  Drwline(T1(1));
  PutcoL(T1,1,'c','','$D>0$','$D=0$','$D<0$');
  PutcoL(T1,2,'c','$ax^2+bx+c > 0$','$x<\alpha, \beta<x$',...
               '$\alpha (=\beta )$を除く実数全体','実数全体');
  PutcoL(T1,3,'c','$ax^2+bx+c < 0$','$\alpha<x<\beta$',...
                                     list(2,'解なし'));
 Endpicture(0);
Closefile();
```

行幅・列幅の指定が簡単！
(セルの要素によって自動的に
調整されてしまうこともなし)
セルの結合操作なども
Excel と比べて遜色なし！

KETpic の最新機能 (その 2) — レイアウト機能

使用前

Problem

Let l be the space line

$$\frac{x-5}{2} = \frac{y-6}{3} = \frac{z-7}{4}$$

and let π be the plane $2x + y - 2z = 1$.

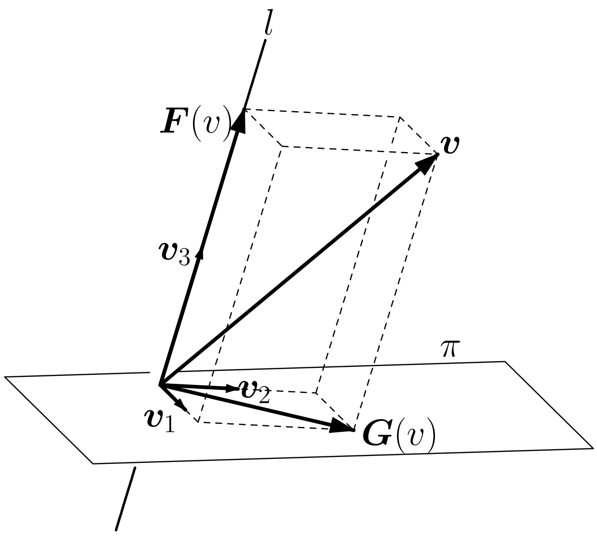
Compute the matrix giving the pararell projection $\boldsymbol{F}$ onto l along π, and the projection $\boldsymbol{G}$ onto π along l.

Solution

The vectors $\boldsymbol{v}_1 = \begin{pmatrix} 1 \\ -2 \\ 0 \end{pmatrix}, \ \boldsymbol{v}_2 = \begin{pmatrix} 0 \\ 2 \\ 1 \end{pmatrix}$

generate π, and the vector $\boldsymbol{v}_3 = \begin{pmatrix} 2 \\ 3 \\ 4 \end{pmatrix}$

generates l.



Since these three vectors are basis of $\mathbf{R}^3$, it is sufficient to calculate the images of these vectors under $\boldsymbol{F}$ or $\boldsymbol{G}$.

(The rest is omitted)

使用後

Problem

Let l be the space line

$$\frac{x-5}{2} = \frac{y-6}{3} = \frac{z-7}{4}$$

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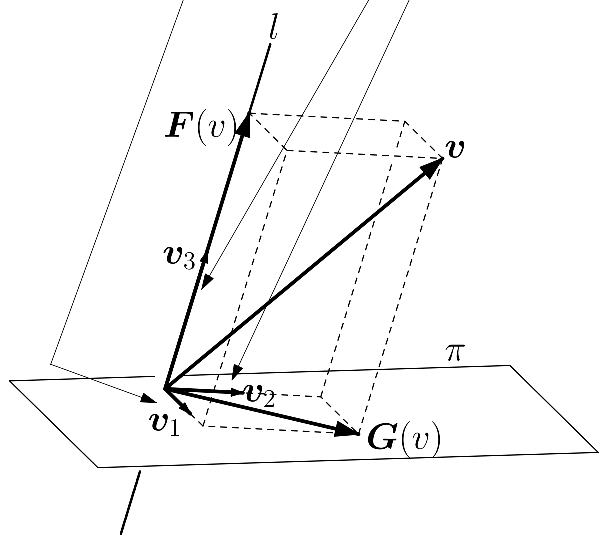

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Linear transformation is determined by the image of **basis vectors**.