Category A	Category B	Category C	Category D
The line between $(0,0,1)$ and $(1,2,1)$	$\mathbf{r} = \langle 2,4,1\rangle + t\langle 1,2,0\rangle$	$x = 2t$ $y = 4t$ $z = 1$	$\frac{x-1}{2} = \frac{y-2}{4}, z = 1$
The line between $(0,-3,3)$ and $(3,3,0)$	$\mathbf{r} = \langle 1,-1,2\rangle + t\langle 1,2,-1\rangle$	$x = 2+t$ $y = 1+2t$ $z = 1-t$	$\frac{x-1}{2} = \frac{y+1}{4} = \frac{z-2}{-2}$
The line between $(1,3,2)$ and $(1,-1,6)$	$\mathbf{r} = \langle 1,2,3\rangle + t\langle 0,-1,1\rangle$	$x = 1$ $y = -t$ $z = 5+t$	$x = 1, \frac{y-1}{-2} = \frac{z-4}{2}$
The line between $(0,0,4)$ and $(12,8,8)$	$\mathbf{r} = \langle 9,6,7\rangle + t\langle -3,-2,-1\rangle$	$x = 6-6t$ $y = 4-4t$ $z = 6-2t$	$\frac{x-3}{3} = \frac{y-2}{2} = \frac{z-5}{1}$
The line between $(5,0,7)$ and $(-2,-7,0)$	$\mathbf{r} = \langle 3,-2,5\rangle + t\langle -1,-1,-1\rangle$	$x = 2-2t$ $y = -3-2t$ $z = 4-2t$	$\frac{x}{2} = \frac{y+5}{2} = \frac{z-2}{2}$
The line between $(-3,3,-9)$ and $(3,-3,9)$	$\mathbf{r} = \langle 0,0,0\rangle + t\langle -1,1,-3\rangle$	$x = -1+t$ $y = 1-t$ $z = -3+3t$	$\frac{x+2}{-2} = \frac{y-2}{2} = \frac{z+6}{-6}$
The line between $(-4,2,1)$ and $(-11,1,-1)$	$\mathbf{r} = \langle 3,3,3\rangle + t\langle 7,1,2\rangle$	$x = 10+7t$ $y = 4+t$ $z = 5+2t$	$\frac{x+4}{14} = \frac{y-2}{2} = \frac{z-1}{4}$