

```

[scale=0.8] [-i] (-0.3,0)–(3.6,0); [-i] (0,-0.3)–(0,3.6); (0,0) node[below]0; (2*sqrt(2),0) node[below] $\sqrt{2}$ ; (1/sqrt(2),0) n
[dashed] (0,sqrt(2)) node[left] $\sqrt{2}$ –(sqrt(2),sqrt(2)); [dashed] (sqrt(2)/sqrt(3),sqrt(2)) node[left] $\frac{\sqrt{2}}{\sqrt{3}}$ –(sqrt(2)/sqrt(3),0)
[blue,thick] plot[samples=100,domain=0:sqrt(2)] (,2*); [red,dashed,thick] plot[samples=100,domain=0:sqrt(2)] (,1/(
[blue] (2.7,2.2) node[right] $v(\beta) = 2\beta$ ; [red] (3.5,1.2) node[right] $v(\beta) = 1/\beta + \beta/2$ ;

```