

```

> restart;
> interface(warnlevel=0) :      #      Maple 12
> with(LinearAlgebra) :
> with(plots) :

```

## Chapter 4 Problem 9

```

> e1 := Vector([1, 0, 0]) :
> e2 := Vector([0, 1, 0]) :
> e3 := Vector([0, 0, 1]) :
> v1 := Vector([0,  $\frac{\sqrt{3}}{2}$ ,  $\frac{1}{2}$ ]) :

```

**Plotting the standard basis { x, y, z }**

```

> sp := plottools[sphere]([0, 0, 0], 1, style=point, color=gray) :
> x := arrow(e1, color=red, width=0.03) :
> y := arrow(e2, color=green, width=0.03) :
> z := arrow(e3, color=blue, width=0.03) :
> v := arrow(v1, color=black, width=0.05) :
display([x, y, z, v, sp], axes=normal, labels=["X", "Y", "Z"], scaling=constrained, tickmarks=[2, 2, 2],
orientation=[103, 70]);

```



