1

```octave
octave] ex=[1; 0]; ey=[0; 1];
```

```octave
octave] b=[0.2; 0.4]; I=[ex ey]; I*b
```

```
ans =

    0.20000
    0.40000
```

```octave
octave] th=pi/6; c=cos(th); s=sin(th);
```

```octave
octave] tvec=[c; s]; nvec=[-s; c];
```

```octave
octave] A=[tvec nvec];
```

```octave
octave] x=A\b
```

```
x =

    0.37321
    0.24641
```

```octave
octave] [x(1)*tvec x(2)*nvec]
```
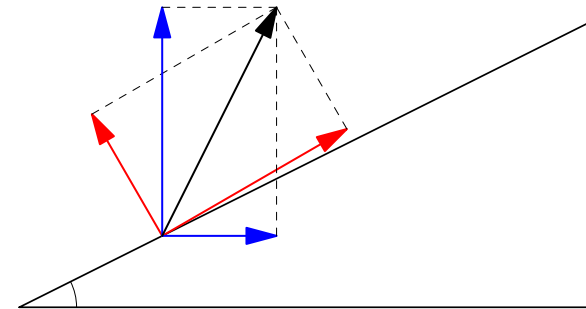
```
ans =

    0.32321   -0.12321
    0.18660    0.21340
```

```octave
octave]
```


Figure 1. Alternative decompositions of force on inclined plane.