

```
In[ ]:= A =  $\begin{pmatrix} 1 - \theta^2 * 5.2 * 10^{-6} & \theta^2 * 10^{-4} \\ \theta^2 * 5.35 * 10^{-5} & 1 - \theta^2 * 1.38 * 10^{-3} \end{pmatrix}$ ; b =  $\begin{pmatrix} -\theta^2 * 3 * 10^{-7} \\ \theta^2 * 4 * 10^{-6} \end{pmatrix}$ ;
```

```
θ = 127.826
```

```
LinearSolve[A, b]
```

```
Out[ ]:=
```

```
127.826
```

```
Out[ ]:=
```

```
{0.0186603, -0.00217637}
```

```
In[ ]:= D1 = {0.01866, -0.002176}
```

```
A =  $\begin{pmatrix} m1 & 0 \\ 0 & m2 \end{pmatrix}$ 
```

```
A * D1
```

```
Out[ ]:=
```

```
{0.01866, -0.002176}
```

```
Out[ ]:=
```

```
{{15.2, 0}, {0, 29.6}}
```

```
Out[ ]:=
```

```
{{0.283632, 0.}, {0., -0.0644096}}
```

```
In[ ]:=
```

```
n0 = 200
```

```
θ = 2 * 3.14 * n0 / 60
```

```
Out[ ]:=
```

```
200
```

```
Out[ ]:=
```

```
20.9333
```

```
In[ ]:= A =  $\begin{pmatrix} 1 - \theta^2 * 5.2 * 10^{-6} & \theta^2 * 10^{-4} \\ \theta^2 * 5.35 * 10^{-5} & 1 - \theta^2 * 1.38 * 10^{-3} \end{pmatrix}$ ; b =  $\begin{pmatrix} -\theta^2 * 3 * 10^{-7} \\ \theta^2 * 4 * 10^{-6} \end{pmatrix}$ ;
```

```
θ = 20.933
```

```
LinearSolve[A, b]
```

```
Out[ ]:=
```

```
20.933
```

```
In[ ]:= {-0.00032737527022161025`, 0.00445381057656699`}
```

```
m1
```

```
Out[ ]:=
```

```
{-0.000327375, 0.00445381}
```

```
Out[ ]:=
```

```
15.2
```