実習6.1

(1)

```
> solve(x^2 - x - 1 = 0, x)
```

$$\frac{\sqrt{5}}{2} + \frac{1}{2}, \frac{1}{2} - \frac{\sqrt{5}}{2} \quad (1)$$

```
> evalf(%)
```

$$1.618033988, -0.6180339880 \quad (2)$$

(2)

```
> solve(x^4 - x^2 + 1 = 0, x)
```

$$\frac{\sqrt{3}}{2} - \frac{I}{2}, -\frac{\sqrt{3}}{2} + \frac{I}{2}, \frac{\sqrt{3}}{2} + \frac{I}{2}, -\frac{\sqrt{3}}{2} - \frac{I}{2} \quad (3)$$

```
> evalf(%)
```

$$0.8660254040 - 0.5000000000\,I, -0.8660254040 + 0.5000000000\,I, 0.8660254040 + 0.5000000000\,I, -0.8660254040 - 0.5000000000\,I \quad (4)$$

(3)

```
> solve(x^4 - x + 1 = 0, x)
```

$$RootOf(\_Z^4 - \_Z + 1, index = 1), RootOf(\_Z^4 - \_Z + 1, index = 2), RootOf(\_Z^4 - \_Z + 1, index = 3), RootOf(\_Z^4 - \_Z + 1, index = 4) \quad (5)$$

```
> evalf(%)
```

$$0.7271360845 + 0.4300142883\,I, -0.7271360845 + 0.9340992895\,I, -0.7271360845 - 0.9340992895\,I, 0.7271360845 - 0.4300142883\,I \quad (6)$$

>

>