

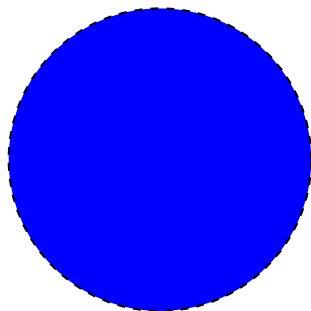
Programy użytkowe semestr zimowy 2024/2025

Dr Anna Muranova
UWM w Olsztynie

Ćwiczenie 6

Kształty:kolo

```
\begin{tikzpicture}  
\draw [thick, dashed, fill=blue] (0,0) circle (2);  
\end{tikzpicture}
```



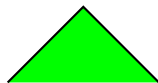
Kształty: prostokąt

```
\begin{tikzpicture}
\draw [red, thick, fill=green] (0,0) rectangle (4,2);
\node[draw=none] at (2,1)
    {$\substack{\mbox{Zielony}\\\mbox{Prostokąt}}$};
\end{tikzpicture}
```



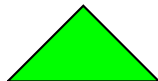
Kształty: trójkąt i dalej

```
\begin{tikzpicture}  
\draw [thick, fill=green] (0,0) -- (1,1) -- (2,0) circle;  
\end{tikzpicture}
```



Porównaj:

```
\begin{tikzpicture}  
\draw [thick, fill=green] (0,0) -- (1,1) -- (2,0) -- (0,0) circle;  
\end{tikzpicture}
```



Mała choinka

```
\begin{tikzpicture}
\definecolor{darkbrown}{rgb}{0.4, 0.26, 0.13}%w preambule!!!!

\draw [thick, fill=OliveGreen] (0,0) -- (1,-1.5) -- (0.5,-1.5) --
      (1.5,-3) -- (0.75,-3) -- (-0.75,-3) -- (-1.5,-3)--
      (-0.5, -1.5) -- (-1,-1.5) --(0,0) circle;

\draw[fill=red, draw=none] (0,0) circle (0.2);
  \foreach \x/\y in {-0.2/-0.7, 0.8/-2.5, -1/-2.7, 0.5/-1,
    0/-2.1, 0.1/-1.5} {
    \draw[fill=white, draw=OliveGreen, dashed] (\x,\y) circle (0.15);
  }

\draw [draw=none, fill=darkbrown] (-0.25,-3) rectangle (0.25,-4);

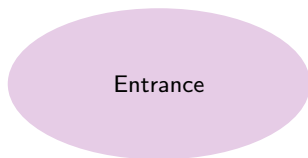
\end{tikzpicture}
```

Mała choinka



Elipsa

```
\begin{tikzpicture}
  \draw[draw=none, fill=violet!20] (0,0) ellipse (2 and 1)
    node {Entrance};
\end{tikzpicture}
```



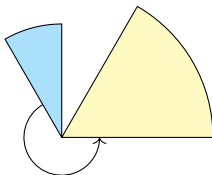
Łuk okręgu

```
\begin{tikzpicture}
\draw[fill=yellow!30] (0,0) -- (2,0)
      arc[start angle=0, end angle=60,radius=2cm] -- (0,0);

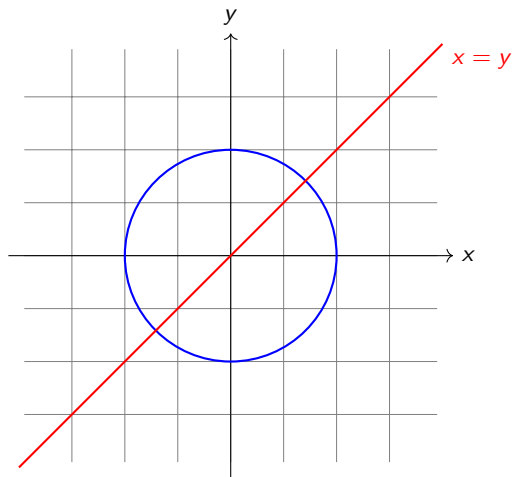
\draw[fill=cyan!30] (0,0) -- (0,1.5)
      arc [start angle=90, delta angle=30, radius=1.5cm] -- (0,0);

%ponizej poszatek arc jest we współrzędnych polarnych
\draw[->] (120:0.5) arc (120:360:0.5) ;

\end{tikzpicture}
```

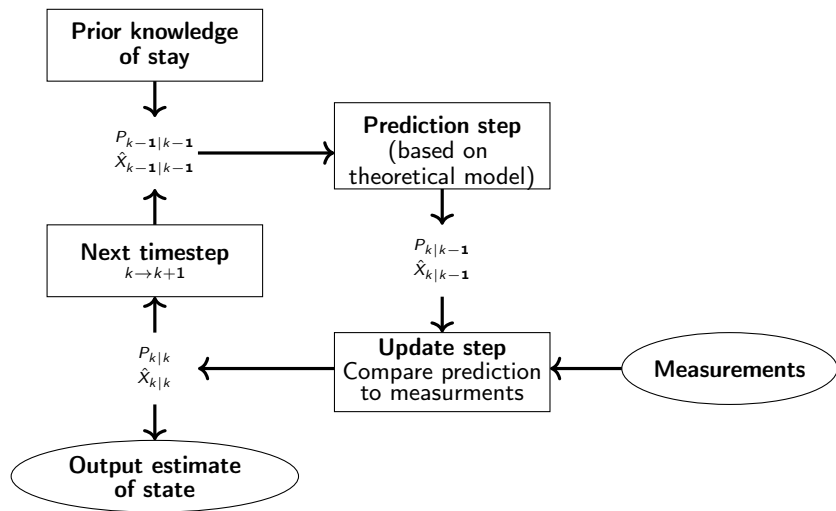


Zadanie 1: narysuj wykres



Rysunek: Kolo

Zadanie 2: Schemat blokowy



Zadanie 3: kartka

