TikZ picture Shape Librery

김대희

2015년 7월

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1.

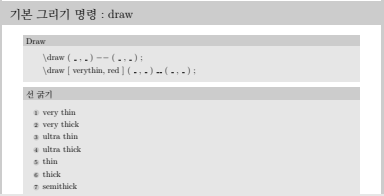
기본 그리기 명령 : draw

Draw

```
\draw ( _ , _ ) -- ( _ , _ ) ;
\draw [ verythin, red ] ( _ , _ ) -- ( _ , _ ) ;
```

선 굵기

1. very thin
2. very thick
3. ultra thin
4. ultra thick
5. thin
6. thick
7. semithick

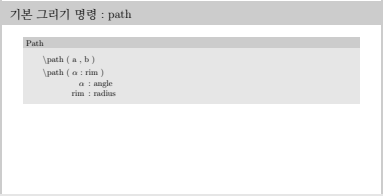


1.

기본 그리기 명령 : path

Path

\path (a , b)
\path (α : rim)
α : angle
rim : radius



1.

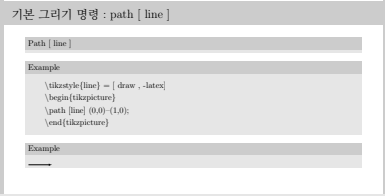
기본 그리기 명령 : path [line]

Path [line]

Example

```
\tikzstyle{line} = [ draw , -latex]
\begin{tikzpicture}
\path [line] (0,0)–(1,0);
\end{tikzpicture}
```

Example



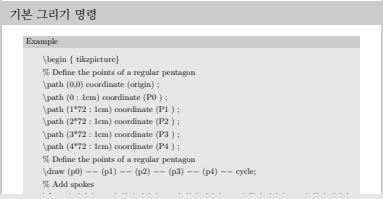
1.

기본 그리기 명령

Example

```
\begin { tikzpicture}
% Define the points of a regular pentagon
\path (0,0) coordinate (origin) ;
\path (0 : 1cm) coordinate (P0 ) ;
\path (1*72 : 1cm) coordinate (P1 ) ;
\path (2*72 : 1cm) coordinate (P2 ) ;
\path (3*72 : 1cm) coordinate (P3 ) ;
\path (4*72 : 1cm) coordinate (P4 ) ;
% Define the points of a regular pentagon
\draw (p0) -- (p1) -- (p2) -- (p3) -- (p4) -- cycle;
% Add spokes
\draw (origin) -- (p0) (origin) -- (p1) (origin) -- (p2) (origin) -- (p3) (origin)
-- (p4);
\end {tikzpicture }
```

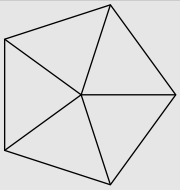

└기본 그리기 명령



1.

기본 그리기 명령

Example



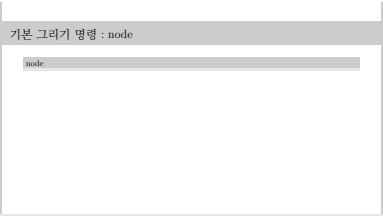
기본 그리기 명령

Example

1.

기본 그리기 명령 : node

node

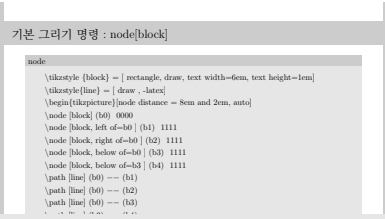


1.

기본 그리기 명령 : node[block]

node

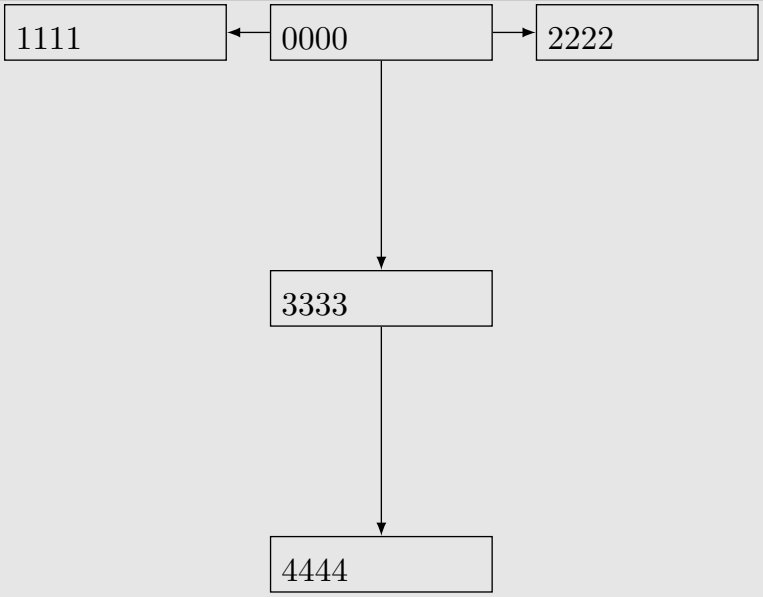
```
\tikzstyle {block} = [ rectangle, draw, text width=6em, text height=1em]
\tikzstyle{line} = [ draw , -latex]
\begin{tikzpicture}[node distance = 8em and 2em, auto]
\node [block] (b0)  0000
\node [block, left of=b0 ] (b1)  1111
\node [block, right of=b0 ] (b2)  1111
\node [block, below of=b0 ] (b3)  1111
\node [block, below of=b3 ] (b4)  1111
\path [line] (b0) -- (b1)
\path [line] (b0) -- (b2)
\path [line] (b0) -- (b3)
\path [line] (b3) -- (b4)
\end{tikzpicture}
```

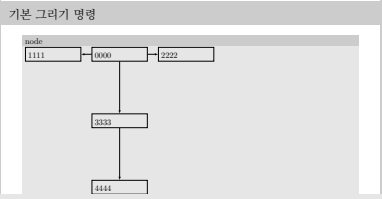



1. block스타일 정의에서 넓이
2. block스타일 정의에서 높이
3. line의 -retex의 의미
4. block의 배치
   - left
   - right
   - below
   - above
5. distance의 8 과 2의 의미

기본 그리기 명령

node





1.

기본 그리기 명령 : node[block]

기본 그리기 명령 : node[block]

1.

node distance

node distance

```
\begin{tikzpicture}[node distance = 8em and 2em, auto]
```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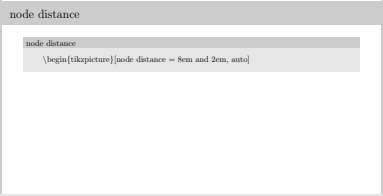
└node distance



1.

positing 라이버러리 사용

node distance

```
\node [block, below of=b0 ] (b3) { 3333 };
\node [block, below=2em of b0 ] (b3) { 3333 };
```

xshift, yshift

xshift = -2em

yshift = -2em

1.

Placing Nodes

1.

Placing Nodes

Placing Nodes Using at syntax

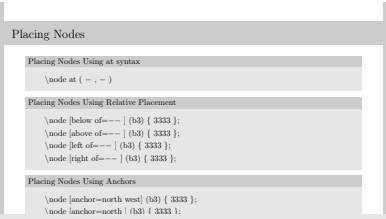
```
\node at ( − , − )
```

Placing Nodes Using Relative Placement

```
\node [below of=−− ] (b3) { 3333 };
\node [above of=−− ] (b3) { 3333 };
\node [left of=−− ] (b3) { 3333 };
\node [right of=−− ] (b3) { 3333 };
```

Placing Nodes Using Anchors

```
\node [anchor=north west] (b3) { 3333 };
\node [anchor=north ] (b3) { 3333 };
\node [anchor=north east] (b3) { 3333 };
\node [anchor=west] (b3) { 3333 };
\node [anchor=east] (b3) { 3333 };
\node [base] (b3) { 3333 };
```

1.

Tikz Style

1.

영역 색깔로 채우기

1.

Tikz Style

Tikz Style

\tikzstyle {block} = [rectangle, draw, text width=6em, text height=1em]
\tikzstyle{line} = [draw , -latex]

width, height

text width = 6em
text height = 6em
minimum width = 6em
minimum height = 6em

shape

rectangle
trapezium
diamond

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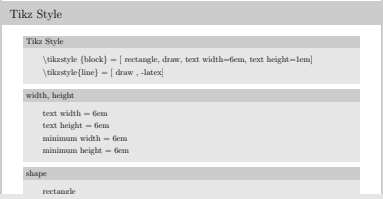
└Tikz Style



1.

Tikz Style

Tikz Style

round corners
text centered
draw=black
fill=red!30

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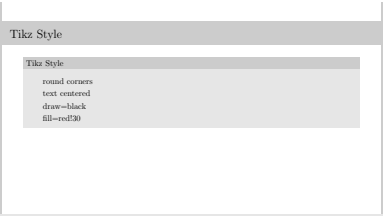
└Tikz Style



1.

Tikz Style : trapezium

trapezium

trapezium left angle=70

trapezium right angle=110

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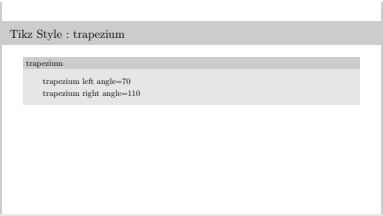
└Tikz Style : trapezium



1.

Text

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2015-07-19

Text

1.

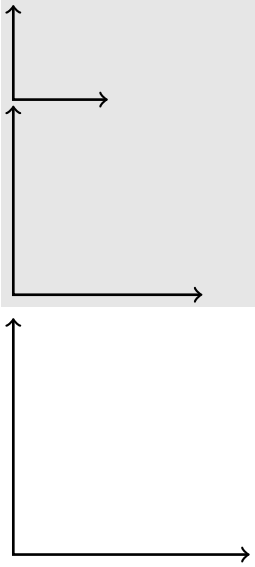
Text 배치

1.

원래 치수되로 그려서 스케일로 축소해서 그림 삽입

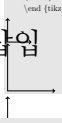
Example

```
\begin {tikzpicture} [xscale=3, yscale=1]
\draw [thick, < − > ] (0,1) – (0,0) – (1,0);
\end {tikzpicture }
```



└원래 치수되로 그려서 스케일로 축소해서 그림 삽입

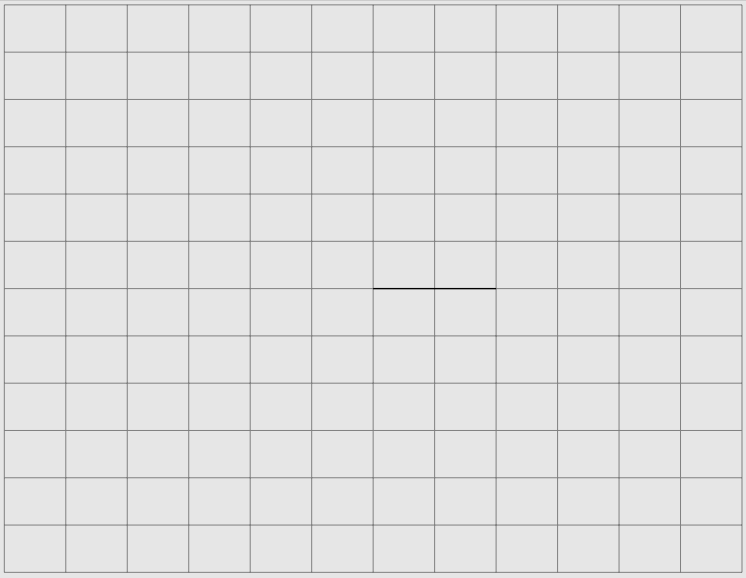
원래 치수되로 그려서 스케일로 축소해서 그림 삽입
Example
\begin {tikzpicture} [xscale=3, yscale=1]
\draw [thick, < − >] (0,1) – (0,0) – (1,0);
\end {tikzpicture }



1.

예제 001

Example



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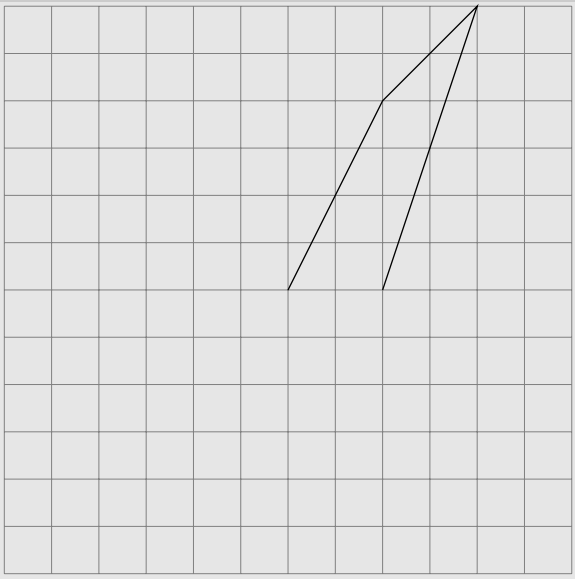
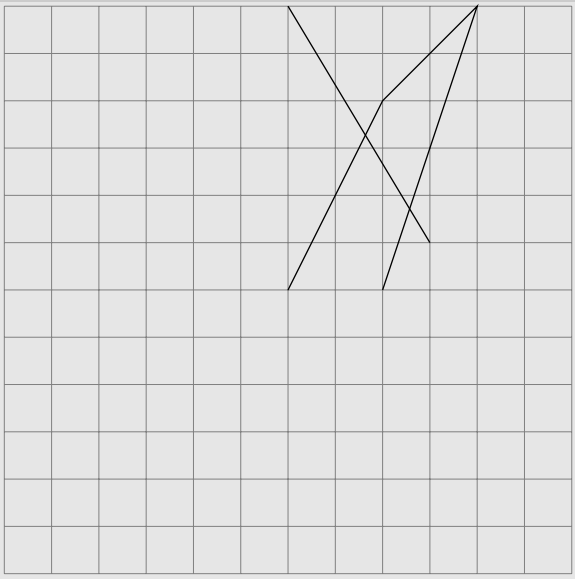
예제 001

Example



예제 001

Example



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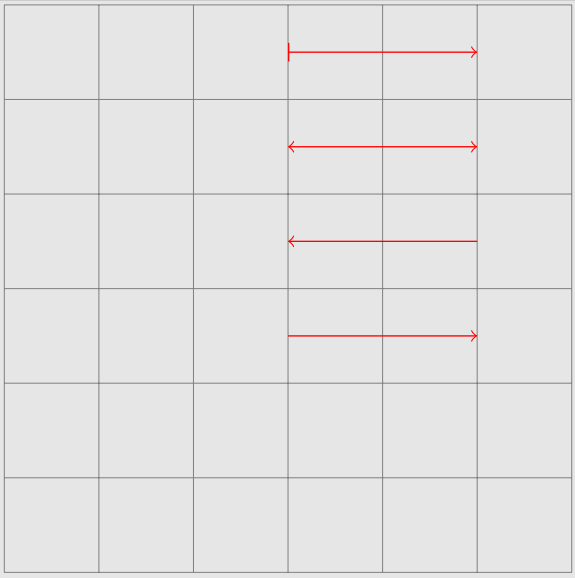
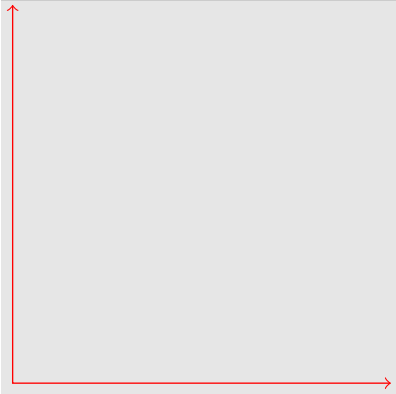
예제 001

Example



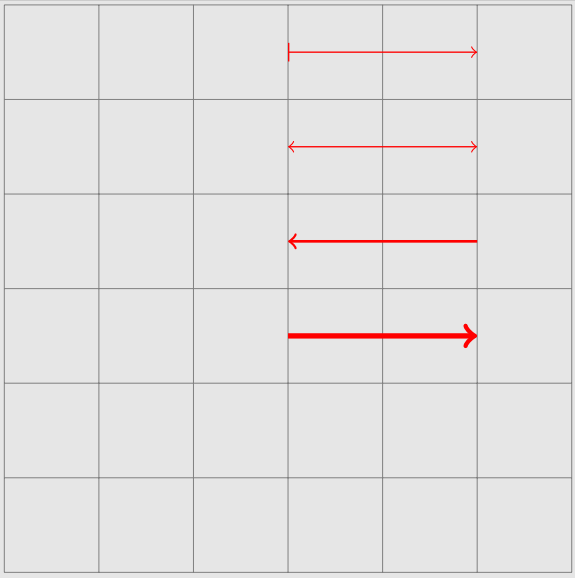
예제 001

Example



예제 : 선의 두께

Example



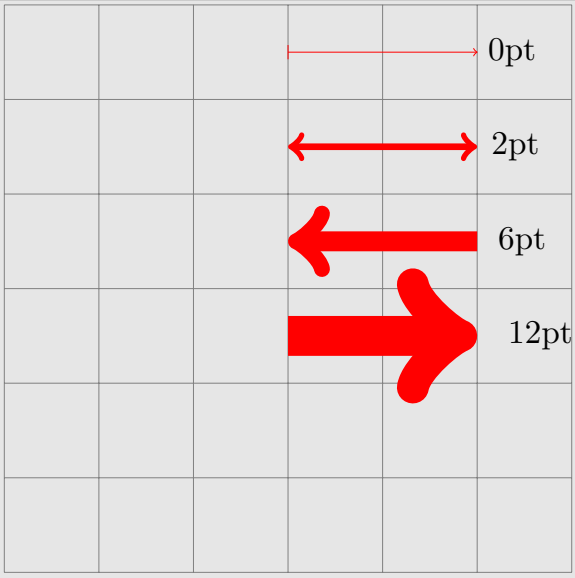
예제 : 선의 두께

선의 두께 종류

ultra thin
very thin
thin
semithick
thick
very thick
ultra thick

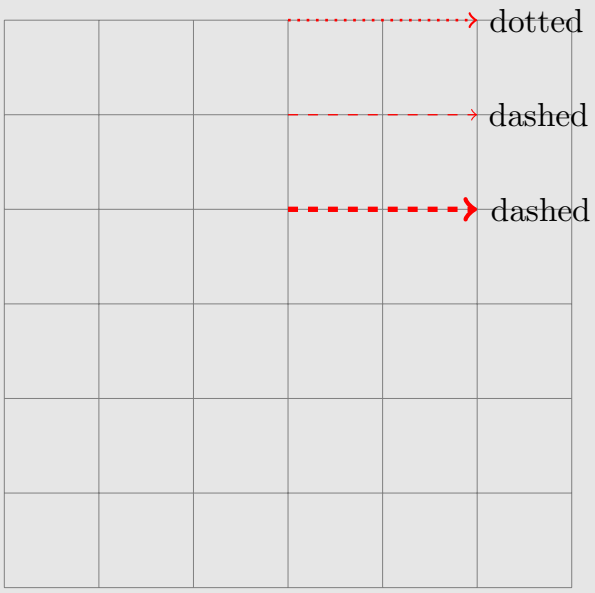
예제 : 선의 두께 : 사용자 정의

Example



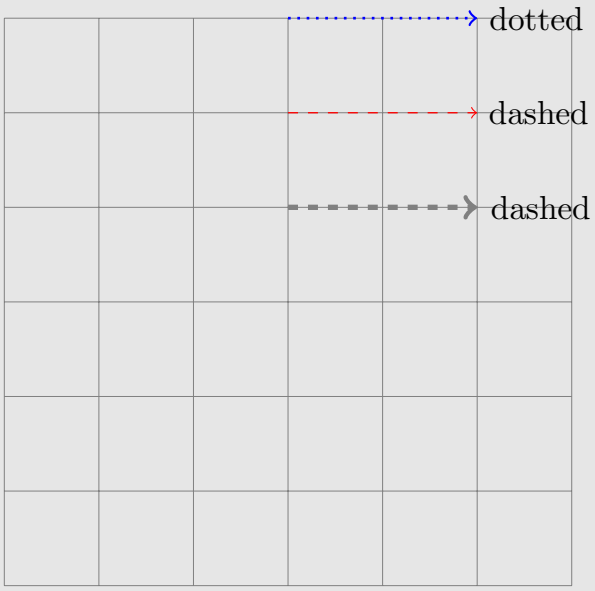
예제 : 선의 종류 : 데쉬와 도트

Example



예제 : 선의 색깔

Example

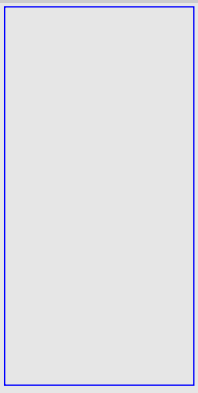


예제 : 선의 색깔

선의 색깔 종류

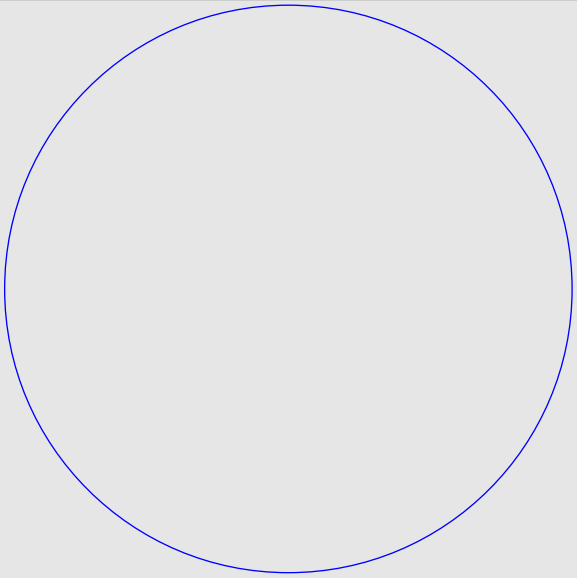
예제 : 사각형 그리기 예제

Example



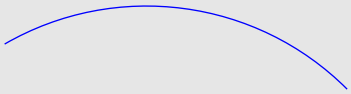
예제 : 원 그리기 예제

Example



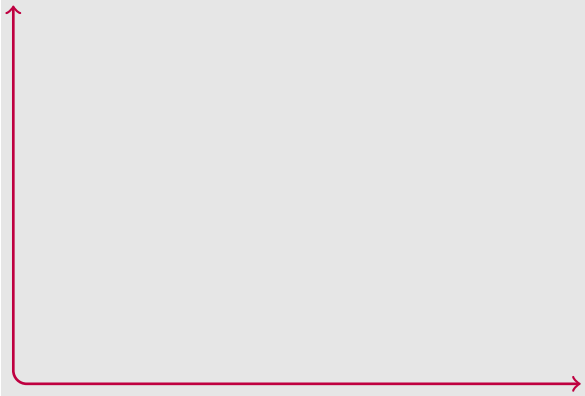
예제 : 호 그리기 예제

Example



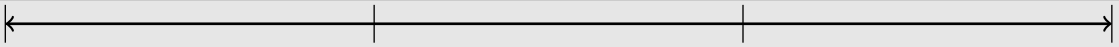
예제 : rounded corners

Example



예제 001

Example



this happen in period 1 and is aligned left

this happen in period 2 and is centered centered

this happen in period 3 and isright right

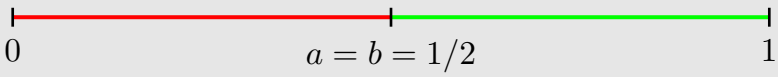
예제 002

Example

$\longrightarrow$ above below

예제 003

Example



예제 004

Example