## Answer on Question\#43079-Math-Geometry

## Question

1. There are four lines
2. Any two distinct lines must intersect at one point
3. Each point is on exactly 2 lines

How can I draw this figure?

## Answer



1. There are 4 lines $\boldsymbol{a}, \boldsymbol{b}, \boldsymbol{c}$ and $\boldsymbol{d}$ and 6 intersection points $\mathbf{A}, \mathbf{B}, \mathbf{C}, \mathbf{D}, \mathbf{E}$ and $\mathbf{F}$.
2. Lines $\boldsymbol{a}$ and $\boldsymbol{b}$ intersect at one point $\mathbf{A}$; Lines $\boldsymbol{a}$ and $\boldsymbol{c}$ intersect at one point $\mathbf{D}$; Lines $\boldsymbol{a}$ and $\boldsymbol{d}$ intersect at one point $\mathbf{F}$; Lines $\boldsymbol{b}$ and $\boldsymbol{c}$ intersect at one point $\mathbf{C}$; Lines $\boldsymbol{b}$ and $\boldsymbol{d}$ intersect at one point $\mathbf{E}$; Lines $\boldsymbol{c}$ and $\boldsymbol{d}$ intersect at one point $\mathbf{B}$.
3. Point $\mathbf{A}$ is exactly on two lines $\boldsymbol{a}$ and $\boldsymbol{b}$;

Point $\mathbf{B}$ is exactly on two lines $\boldsymbol{c}$ and $\boldsymbol{d}$;
Point $\mathbf{C}$ is exactly on two lines $\boldsymbol{b}$ and $\boldsymbol{c}$;
Point $\mathbf{D}$ is exactly on two lines $\boldsymbol{a}$ and $\boldsymbol{c}$;
Point $\mathbf{E}$ is exactly on two lines $\boldsymbol{b}$ and $\boldsymbol{d}$;
Point $\mathbf{F}$ is exactly on two lines $\boldsymbol{a}$ and $\boldsymbol{d}$.

