**function** convert2redians(deg){  
 **return** deg\*Math.PI/180;  
}

//①角度转换为弧度的函数  
**function** mercator2y(lat) {  
 y=Math.log(Math.tan(lat)+(1.0)/Math.cos(lat));  
 **return** y;  
}

//②纬度的莫卡托转换的函数

**function** degree2xy(lat,lon,north,south,west,east,size,zoom) {  
 lat=convert2redians(lat);  
 lon=convert2redians(lon); //③将经纬度转为弧度  
  
 /……./将四个经纬度值转为弧度值

let yMin=mercator2y(south);  
 let yMax=mercator2y(north); //④纬度边界做莫卡托转换

let y=mercator2y(lat);//⑤目标纬度做莫卡托转换

let xfactor=size/(east-west);  
 let yfactor=size/(yMax-yMin);//计算单位经纬度的像素值

let x=(lon-west)\*xfactor;  
 y=(yMax-y)\*yfactor;// ⑥计算目标坐标的像素值

x=x/256;

y=y/256;// ⑦得出栅格坐标值

**return** {**"x"**:x,**"y"**:y}  
}