```cpp
void paintEvent(QPaintEvent* event){
  QPainter painter(this);

  // xc and yc are the center of the widget's rect.
  qreal xc = width() * 0.5;
  qreal yc = height() * 0.5;

  painter.setPen(Qt::black);

  // draw the cross lines.
  painter.drawLine(xc, rect().top(), xc,
```