DSP2 SS2018 – Exercise 6.2: Hough Transformation

1. The new src folder includes all files from the last, but two are a little bit different:
    - Segmentation.h: declaration of the class for the Hough Transformation
    - Segmentation.cpp: implementation of the class for the Hough Transformation
2. The data folder includes all images from the last exercises and one new image:
    - lines.tiff: Float value image with the lines for the Hough Transformation. The lines are white (1f) and the rest of the image is black (0f)

3. Implement the function “void Segmentation::houghTransform(const cv::Mat &input, float phiStep, cv::Mat &output)”
    - “Input”: is the float value input image
    - “phiStep”: number of angle steps for the Hough Transformation
    - “output”: is the output image for the result
    a. What is the largest angle we need to find the straight lines?
    b. Think about the number of rows and columns you need for the output image and create the output image accordingly
    c. Implement the algorithm for the Hough Transformation