Class Exercise #15
1.050 Solid Mechanics
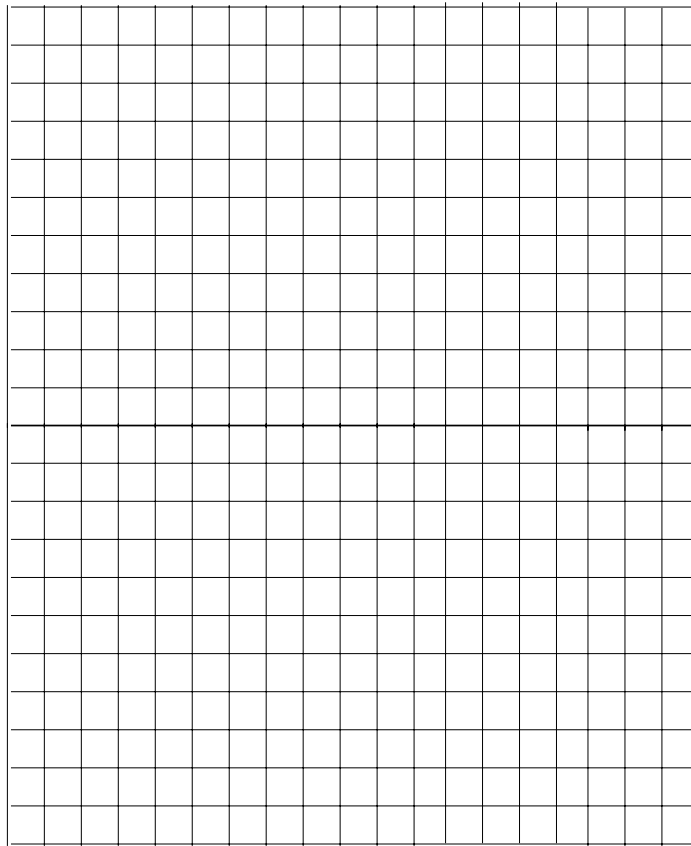
A two-dimensional state of strain at a point is defined by the components

ε_x = 1.0 x 10E-04

γ_{xy} = -1.155 x 10E-04

ε_y = 1.667 x 10E-04

Draw the mohr's circle representing this state of strain at the point.

What is the extensional strain at the point of a line element inclined at 60 deg (ccw) to the x axis?

What is the extensional strain at the point of a line element inclined at 120 deg (ccw) to the x axis?