Problem Wk.8.3.6: Period of Pole

Implement the following function (refer to Section 5.5.2 in the course notes - especially the Summary):

• periodofPole: takes a pole as an argument and returns the period of oscillation, if the pole corresponds to periodic response and None if the pole corresponds to non-periodic response. Note that a response that alternates between positive and negative is periodic (a period of 2).

We have given you a helper function that converts a complex number to the polar representation.

```
def periodOfPole(pole):
    pass

def complexPolar(p):
    if isinstance(p, complex):
        return (abs(p), math.atan2(p.imag, p.real))
    else:
        if p < 0:
        return (-p, math.pi)
    else:
        return(p, 0.0)
</pre>
```

MIT OpenCourseWare http://ocw.mit.edu

6.01SC Introduction to Electrical Engineering and Computer Science Spring 2011

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.