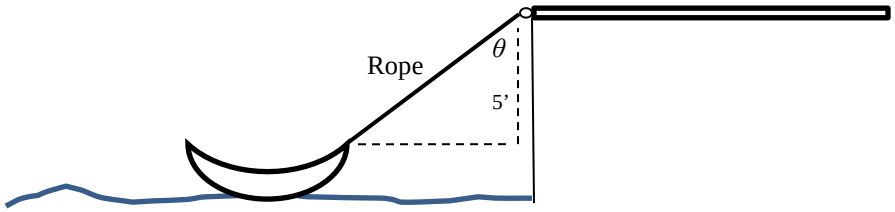
MATH 205 – Calculus I **SQ 3.11**

Name: _____ Date: _____

Instructions: Though calculators can be used for the entire daily question, all problems require you to show your work. Any answer without proper justification will receive ***ZERO*** credit. Only **EXACT** answers will receive full credit unless otherwise noted.

A rowboat is pulled towards a dock by a rope from the bow through a ring on the dock 5 feet above the bow. The rope is hauled in at a rate of 2 ft/sec.



1. How fast is the boat approaching the dock when 13 feet of rope are out?

2. At what rate is the θ changing at that moment?