

# Answer Key

Name \_\_\_\_\_

Section \_\_\_\_\_

MA 162 Quiz 10 December 4, 2014

Andrea, a self-employed individual, wishes to accumulate a retirement fund of \$250,000. How much should she deposit each month into her retirement account, which pays interest at the rate of 4.5%/year compounded monthly, to reach her goal upon retirement 25 years from now?

Use Sinking Fund

$$R = \frac{iS}{(1+i)^n - 1}$$

$$i = \frac{4.5/100}{12} = .00375$$

$$n = 25 \cdot 12 = 300$$

$$R = \frac{(.00375)(250,000)}{(1+.00375)^{300} - 1} \approx \$452.08$$