

Math 099 - Assignment 8

April 2, 2019

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary. This assignment is worth 5 points.

1. Use your calculator to evaluate each expression at the given values.

(a) $P \cdot \left(1 + \frac{r}{n}\right)^{60}$ when $P = 1500.75$, $r = 4.55\%$, and $n = 5$

$$1500.75 * \left(1 + \frac{0.0455}{5}\right)^{60} \\ \approx 2584.405892$$

(b) $P \cdot \left(1 + \frac{r}{n}\right)^{nt}$ when $P = 535.50$, $r = 2.75\%$, $n = 4$, and $t = 10$

$$535.50 * \left(1 + \frac{0.0275}{4}\right)^{(4 * 10)} \\ \approx 704.3390799$$

(c) $R \cdot \left[\left(1 + \frac{r}{n}\right)^{nt} - 1\right]$ when $R = 250$, $r = 7.5\%$, $n = 12$, and $t = 25$

$$250 * \left(\left(1 + \frac{0.075}{12}\right)^{(12 * 25)} - 1\right) \\ \approx 1370.720112$$

(d) $R \cdot \left[1 - \left(1 + \frac{r}{n}\right)^{-nt}\right]$ when $R = 1000$, $r = 8.25\%$, $n = 12$, and $t = 15$

$$1000 * \left(1 - \left(1 + \frac{0.0825}{12}\right)^{-12 * 15}\right) \\ \approx 708.6603443$$

2. Round each number to the indicated place.

(a) 123.4556 to the nearest hundredth



123.46

(b) 0.000825 to the nearest thousandth



0.001

(c) 0.468 to the nearest one



0

(d) 145459.82 to the nearest thousand



145,000.00

(e) 145459.82 to the nearest ten thousand



150,000