

$$438.30 = P \cdot r$$

$$r = \frac{438.30}{P}$$

(Myron says 4383 is more than he will get/principal)

$$A = P \left(1 + \frac{r}{n}\right)^{nt}$$

$$P < 4383$$

$$P = \$3455.48$$

Myron's money

$$11,406.14 - 3,455.48 = 7950.66$$

$$\text{Gained Interest} = \$7950.66$$

Philomena

$$11,406.14 = P \left(1 + \frac{r}{n}\right)^{nt}$$

$$11,406.14 = P \left(1 + \frac{438.3}{P(1)}\right)^{1(10)}$$

$$11,406.14 = P \left(1 + \frac{438.3}{P}\right)^{10}$$

$$11,406.14 = P \cdot \left(1 + \frac{438.3}{P}\right)^{10}$$

$$\frac{11,406.14}{P} = \left(\frac{P+438.3}{P}\right)^{10}$$

$$\log 11,406.14 - \log P = \log \left(\frac{P+438.3}{P}\right)^{10}$$

$$\log 11,406.14 - \log P = 10 \log (P+438.3) - 10 \log P$$

$$\log 11,406.14 = 10 \log (P+438.3) - 9 \log P$$

$$\log 11,406.14 + 9 \log P = 10 \log (P+438.3)$$

$$\log (P^9 (11,406.14)) = \log ((P+438.3)^{10})$$

$$P^9 (11,406.14) = (P+438.3)^{10}$$

$$0 = (P+438.3)^{10} - 11,406.14(P^9)$$

$$P \approx \$3455.48, \quad \cancel{4525.66}$$

extraneous  
 $P < 4383$

In Conclusion, Myron will keep \$3455.48  
and Philomena will get \$7950.66.