

16) $A = Pe^{rt}$
 $P = 2000$
 $t = 2$
 $r = .03$
 $A = ?$

$$A = 2000e^{.03 \times 2}$$

$$A = 2123.67$$

17) $A = Pe^{rt}$
 $A = 5000$
 $t = 5$
 $r = .04$
 $P = ?$

$$5000 = P e^{.04 \times 5}$$

$$\frac{5000}{e^{.2}} = P$$

$$P = 4093.65$$

18) $A = Pe^{rt}$
 $A = 6000$
 $P = 5500$
 $r = .072$
 $t = ?$

$$6000 = 5500e^{.072t}$$

$$\frac{6000}{5500} = e^{.072t}$$

$$LN\left(\frac{6000}{5500}\right) = we^{.072t}$$

$$LN\left(\frac{6000}{5500}\right) = .072t$$

$$\frac{LN\left(\frac{6000}{5500}\right)}{.072} = t$$

$$t = 1.2$$

19) $A = Pe^{rt}$

$$7000 = 5000e^{r(30)}$$

$$\frac{7000}{5000} = e^{30r}$$

$$LN\left(\frac{7000}{5000}\right) = we^{30r}$$

$$LN\left(\frac{7000}{5000}\right) = 30r$$

$$\frac{LN\left(\frac{7000}{5000}\right)}{30} = r$$

$$r = .0112$$

$$r = 1.12\%$$

20) $A = Pe^{rt}$

$$4000 = 2000e^{.041t}$$

⋮
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