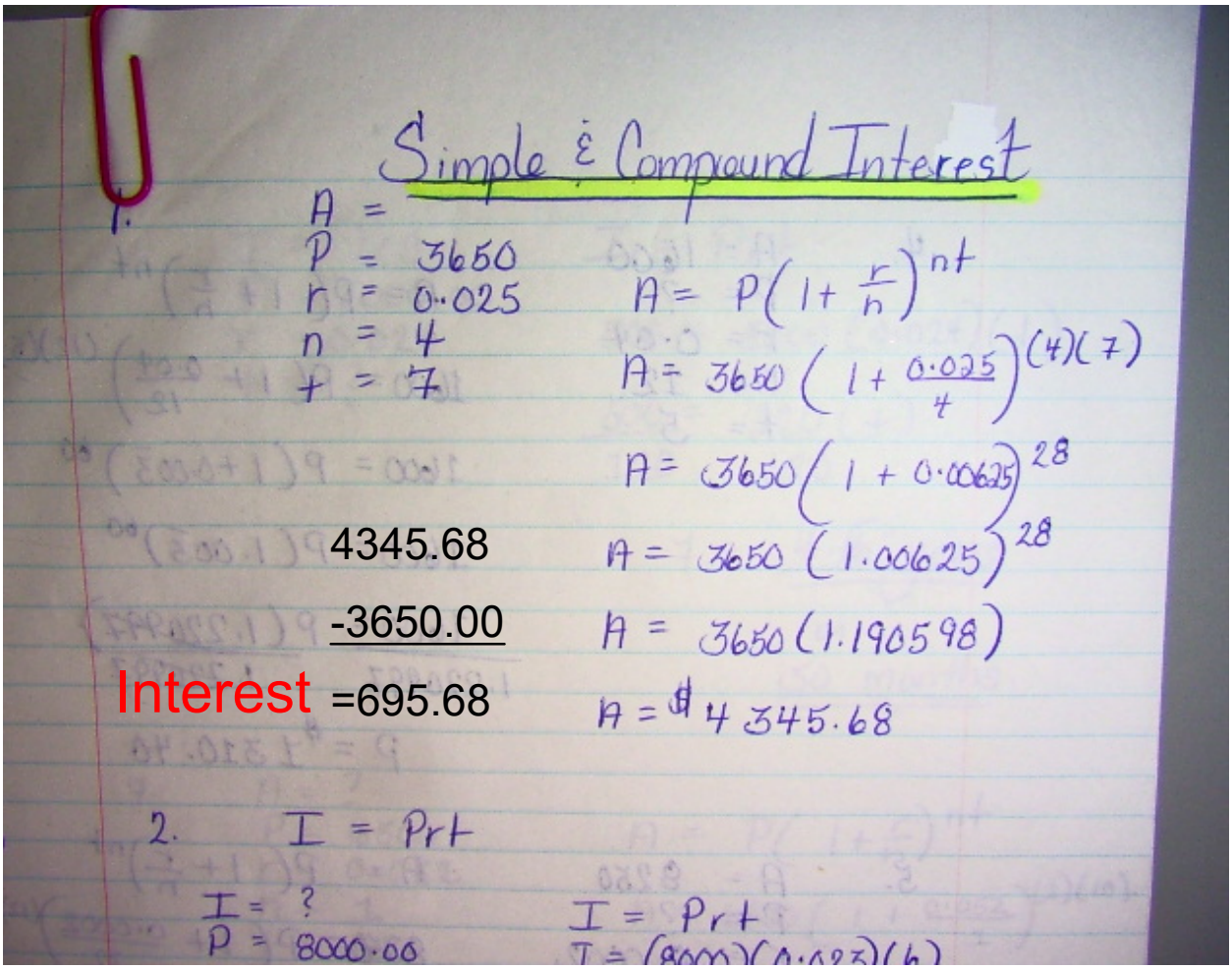
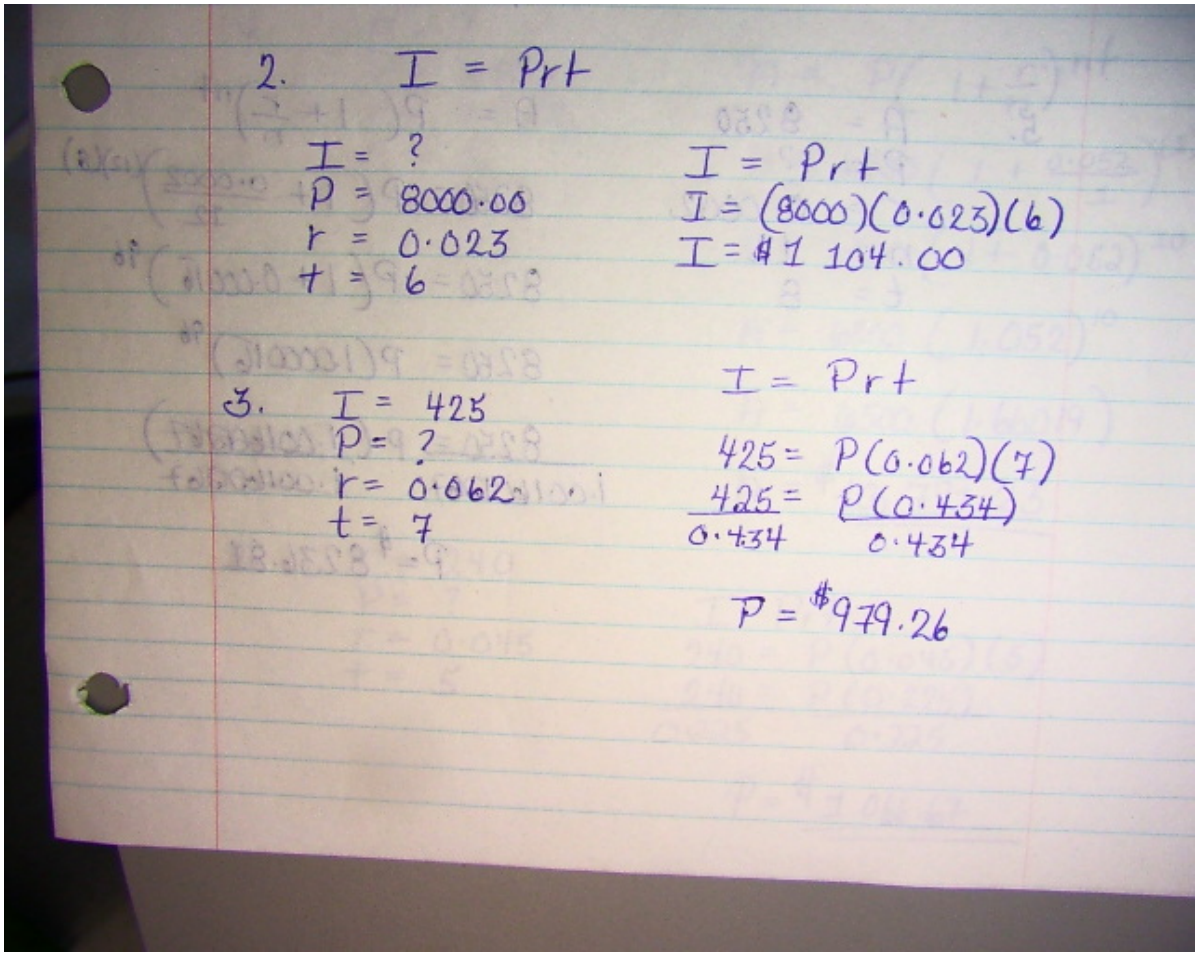
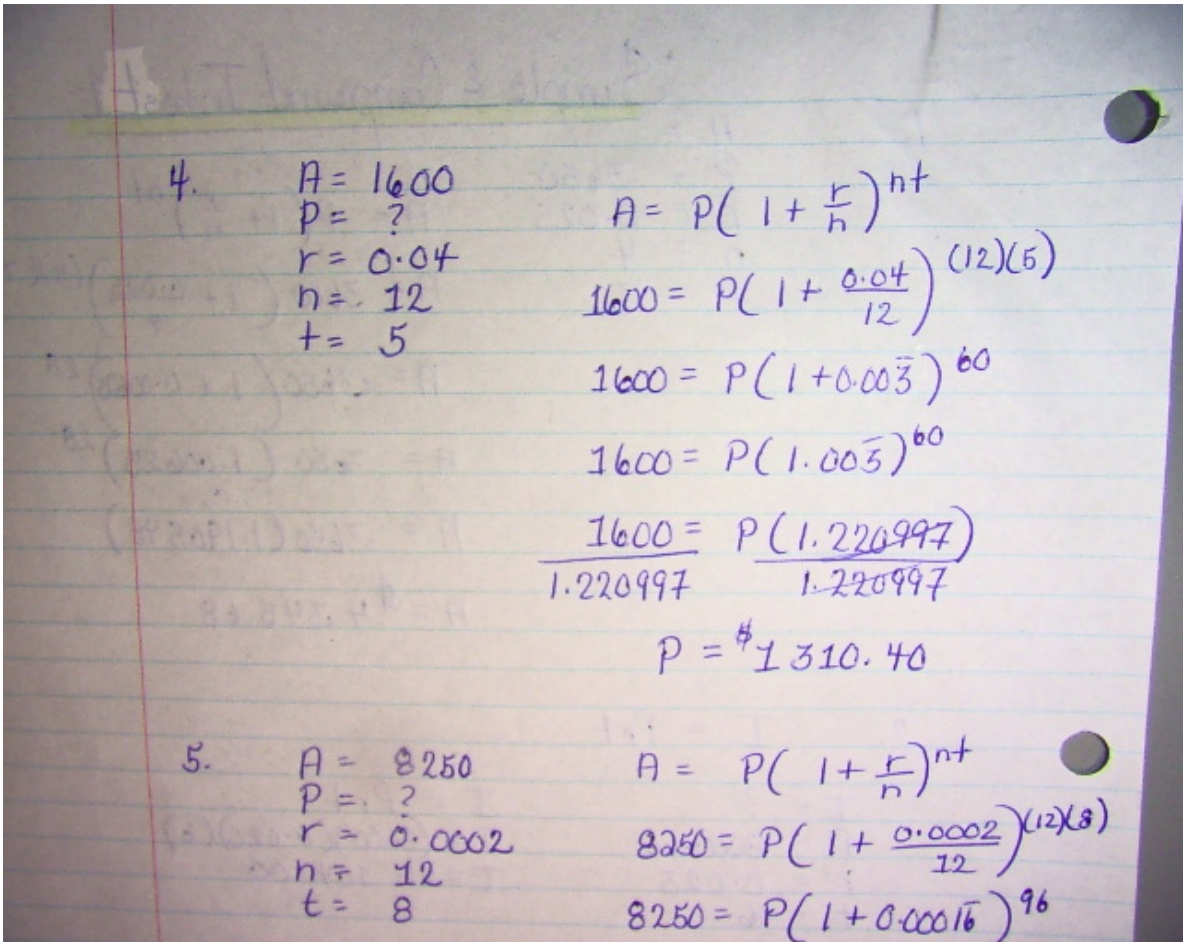

Simple & Compound Interest
1.
A =
P = 3650
r = 0.025
n = 4
t = 7
A = P(1 + r/n)^nt
A = 3650(1 + 0.025/4)^(4)(7)
A = 3650(1 + 0.00625)^28
A = 3650(1.00625)^28
A = 3650(1.190598)
A = $4345.68
4345.68
-3650.00
Interest =695.68
2. I = Prt
I = ?
P = 8000.00
I = Prt


2. I = Prt
I = ?
P = 8000.00
r = 0.023
t = 6
I = Prt
I = (8000)(0.023)(6)
I = $1 104.00
3. I = 425
P = ?
r = 0.062
t = 7
I = Prt
425 = P(0.062)(7)
425 = P(0.434)
0.434 0.434
P = $979.26



4. $A = 1600$, $P = ?$, $r = 0.04$, $n = 12$, $t = 5$

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

$$1600 = P\left(1 + \frac{0.04}{12}\right)^{(12)(5)}$$

$$1600 = P(1 + 0.00\overline{3})^{60}$$

$$1600 = P(1.00\overline{3})^{60}$$

$$\frac{1600}{1.220997} = \frac{P(1.220997)}{1.220997}$$

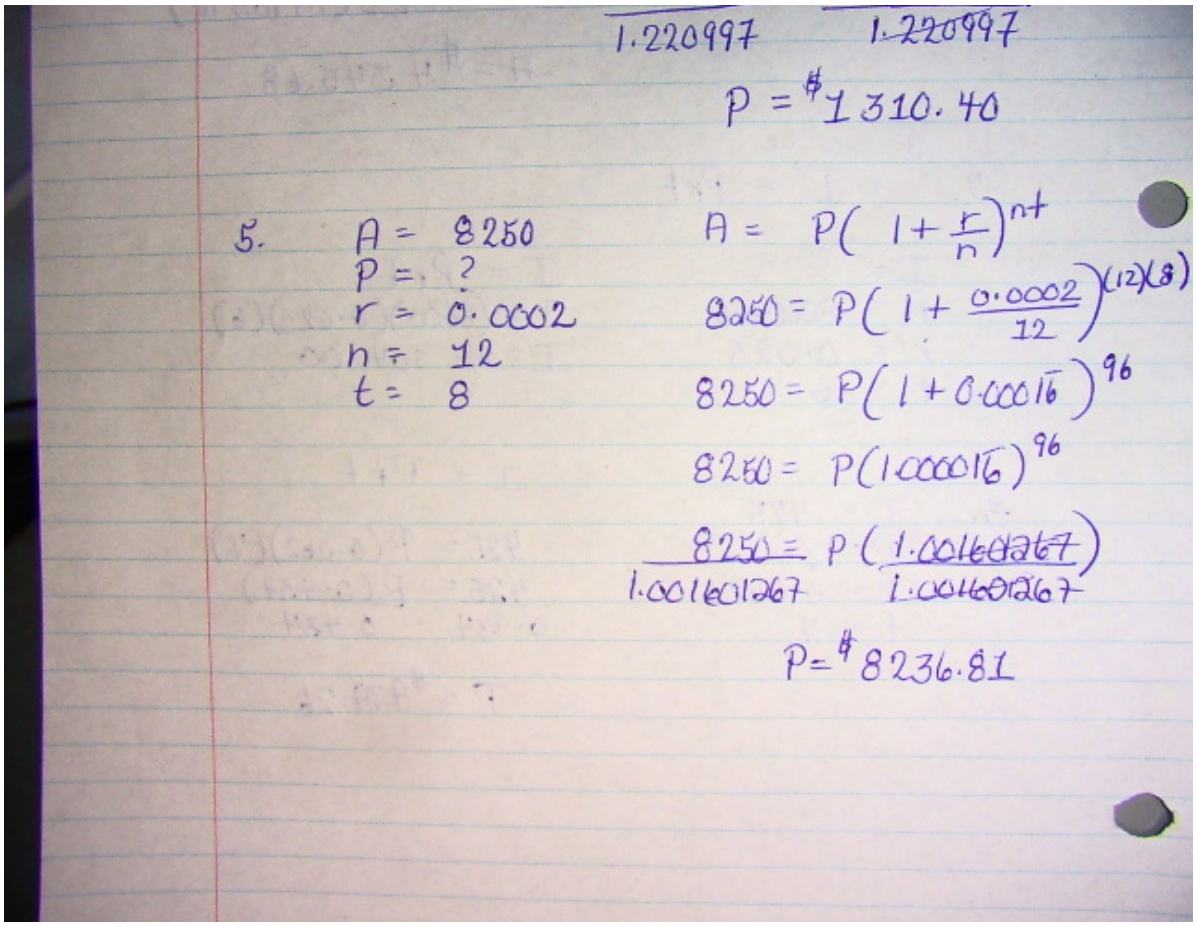
$$P = \$1310.40$$

5. $A = 8250$, $P = ?$, $r = 0.0002$, $n = 12$, $t = 8$

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

$$8250 = P\left(1 + \frac{0.0002}{12}\right)^{(12)(8)}$$

$$8250 = P(1 + 0.0000\overline{16})^{96}$$



1.220997 1.220997

$P = \$1310.40$

5. $A = 8250$
$P = ?$
$r = 0.0002$
$n = 12$
$t = 8$

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

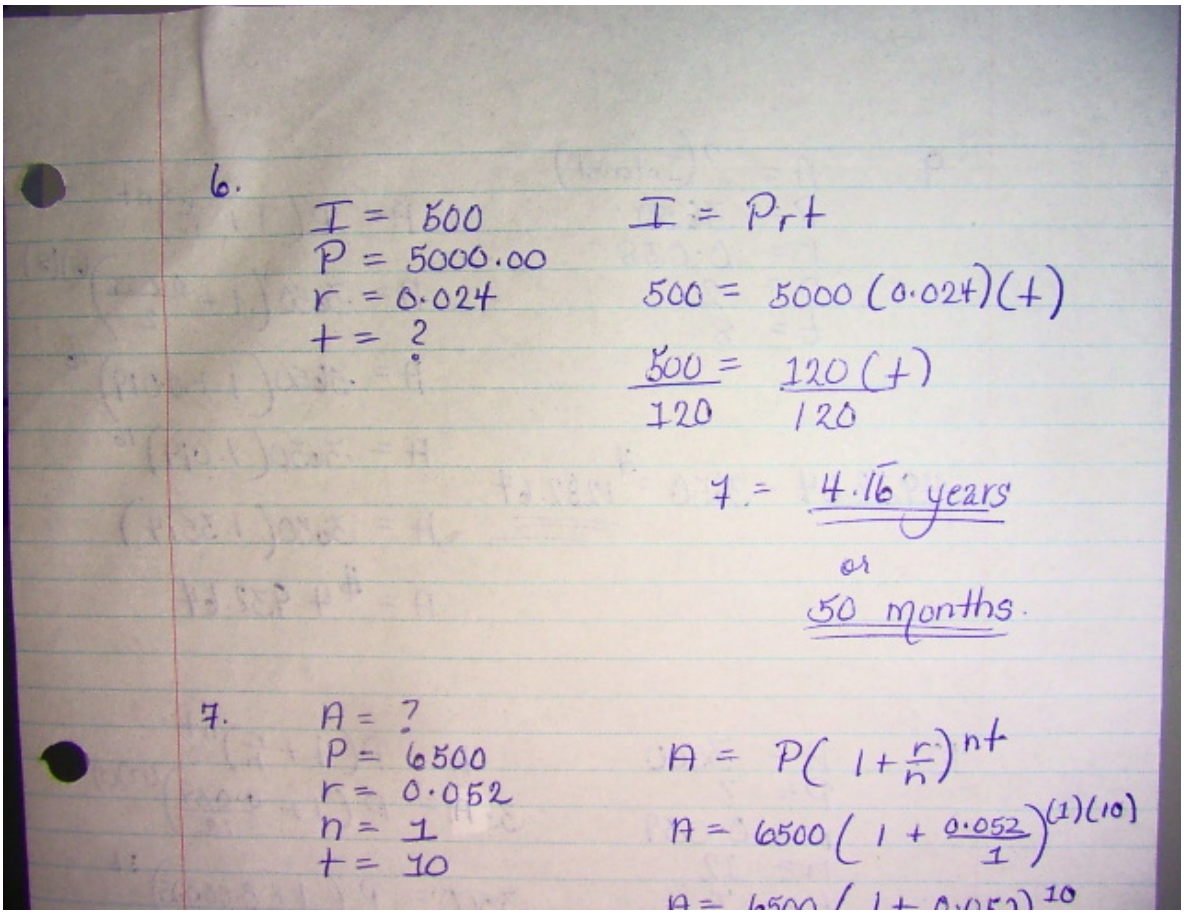
$8250 = P\left(1 + \frac{0.0002}{12}\right)^{(12)(8)}$

$8250 = P(1 + 0.0001\overline{6})^{96}$

$8250 = P(1.0000\overline{16})^{96}$

$\frac{8250}{1.00160\overline{1267}} = \frac{P(1.00160\overline{1267})}{1.00160\overline{1267}}$

$P = \$8236.81$



6.

$I = 500$
$P = 5000.00$
$r = 0.024$
$t = ?$

$I = Prt$

$500 = 5000(0.024)(t)$

$\frac{500}{120} = \frac{120(t)}{120}$

$t = 4.\overline{16}$ years

or

50 months.

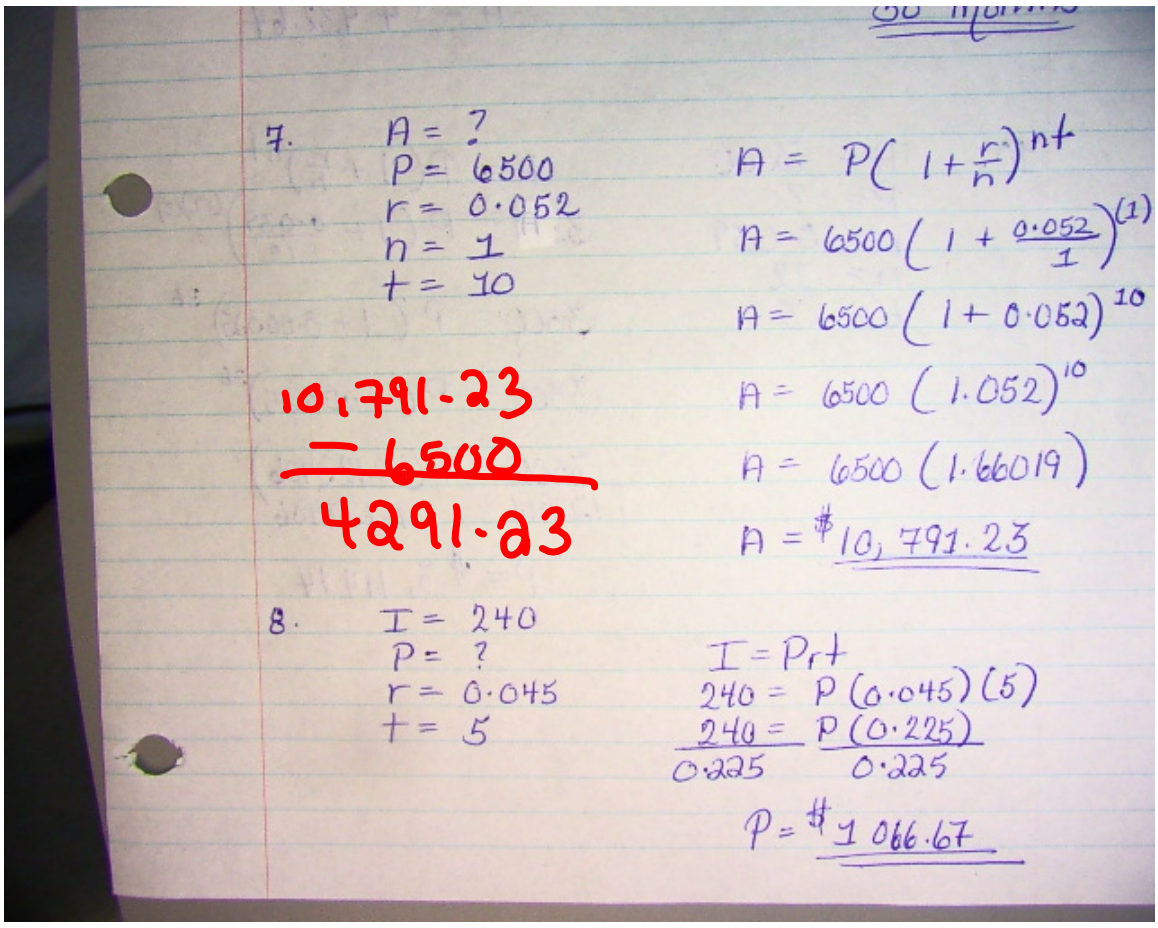
7.

$A = ?$
$P = 6500$
$r = 0.052$
$n = 1$
$t = 10$

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

$A = 6500\left(1 + \frac{0.052}{1}\right)^{(1)(10)}$

$A = 6500(1 + 0.052)^{10}$



7. $A = ?$, $P = 6500$, $r = 0.052$, $n = 1$, $t = 10$

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

$A = 6500\left(1 + \frac{0.052}{1}\right)^{(1)}$

$A = 6500\left(1 + 0.052\right)^{10}$

$A = 6500\left(1.052\right)^{10}$

$A = 6500\left(1.66019\right)$

$A = \$10,791.23$

10,791.23
− 6500
4291.23

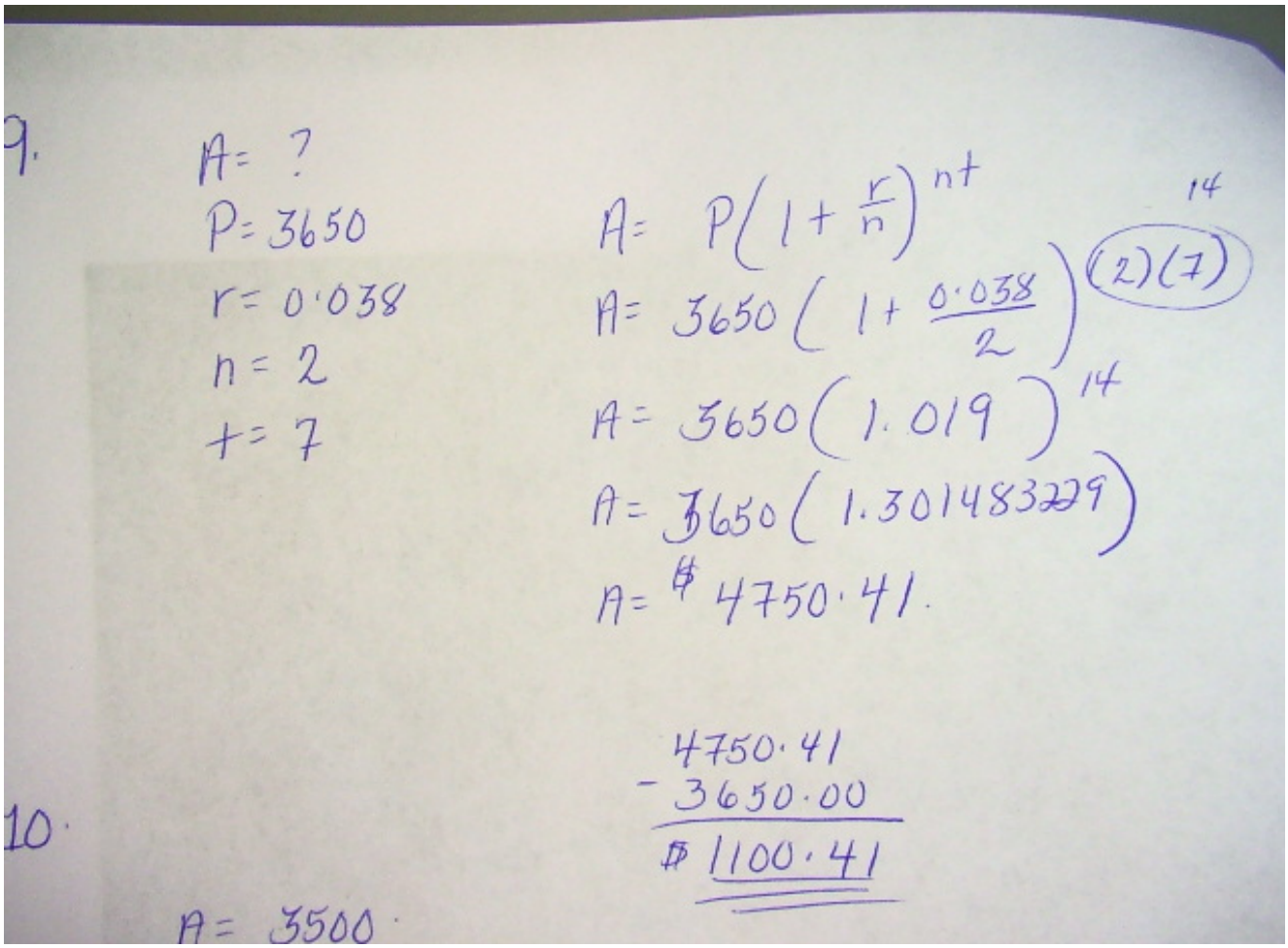
8. $I = 240$, $P = ?$, $r = 0.045$, $t = 5$

$I = Prt$

$240 = P(0.045)(5)$

$\frac{240}{0.225} = \frac{P(0.225)}{0.225}$

$P = \$1066.67$



9.

$A = ?$
$P = 3650$
$r = 0.038$
$n = 2$
$t = 7$

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

$A = 3650\left(1 + \frac{0.038}{2}\right)^{(2)(7)}$

14

$A = 3650(1.019)^{14}$

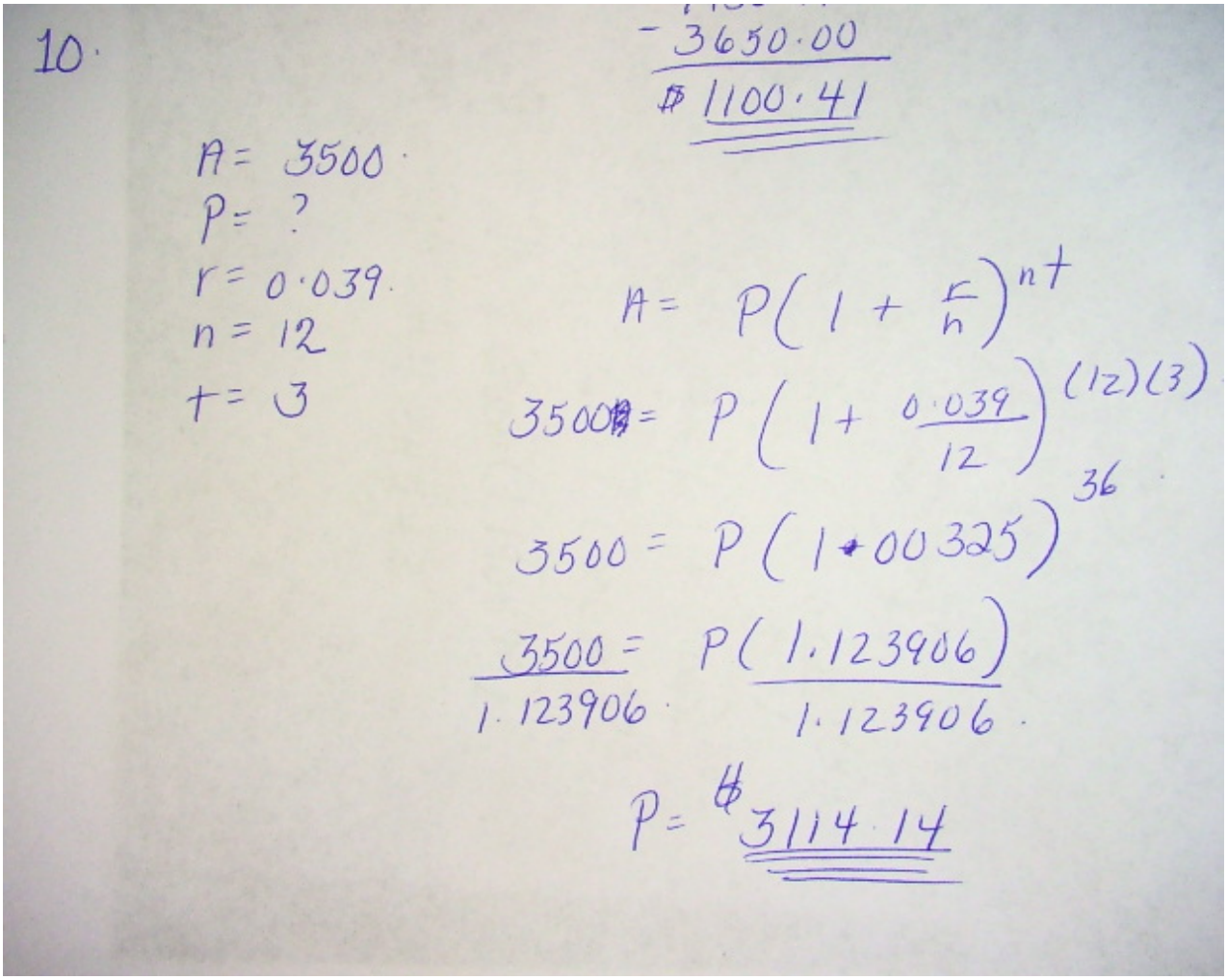
$A = 3650(1.301483229)$

$A = \$4750.41$

4750.41
$-\ 3650.00$
$\$1100.41$

10.

$A = 3500$


10.
- 3650.00
$ 1100.41
A = 3500.
P = ?
r = 0.039.
n = 12
t = 3
A = P(1 + r/n)^nt
3500 = P(1 + 0.039/12)^(12)(3)
3500 = P(1.00325)^36
3500/1.123906 = P(1.123906)/1.123906
P = $3114.14