

## 16.4 – Compound Interest

Change the following percents into decimals.

1. 95%	2. 25%	3. 320%	4. 54%
5. 14.5%	6. 2.2%	7. 34%	8. 1.5%

Solve the following word problems.

9. \$800 is deposited in an account that pays 9% compounded semi-annually. Find the balance after 4 years.

$$A = \underline{\hspace{2cm}}$$

$$P = \underline{\hspace{2cm}}$$

$$r = \underline{\hspace{2cm}}$$

$$n = \underline{\hspace{2cm}}$$

$$t = \underline{\hspace{2cm}}$$

10. \$1000 is invested in an account that pays 4.5% compounded quarterly. What will be the balance after 10 years?

$$A = \underline{\hspace{2cm}}$$

$$P = \underline{\hspace{2cm}}$$

$$r = \underline{\hspace{2cm}}$$

$$n = \underline{\hspace{2cm}}$$

$$t = \underline{\hspace{2cm}}$$

11. How much must you deposit in an account that pays 8% annual interest, compounded monthly, to have a balance of \$1000 after one year?

$$A = \underline{\hspace{2cm}}$$

$$P = \underline{\hspace{2cm}}$$

$$r = \underline{\hspace{2cm}}$$

$$n = \underline{\hspace{2cm}}$$

$$t = \underline{\hspace{2cm}}$$

12. Chad opened a savings account and deposited \$700 as principal. The account earns 12% interest, compounded annually. What is the balance after 6 years?

$$A = \underline{\hspace{2cm}}$$

$$P = \underline{\hspace{2cm}}$$

$$r = \underline{\hspace{2cm}}$$

$$n = \underline{\hspace{2cm}}$$

$$t = \underline{\hspace{2cm}}$$

13. Charlie puts \$200 into an account to use for school expenses. The account earns 15% interest, compounded annually. How much will be in the account after 8 years?

$$A = \underline{\hspace{2cm}}$$

$$P = \underline{\hspace{2cm}}$$

$$r = \underline{\hspace{2cm}}$$

$$n = \underline{\hspace{2cm}}$$

$$t = \underline{\hspace{2cm}}$$