Key

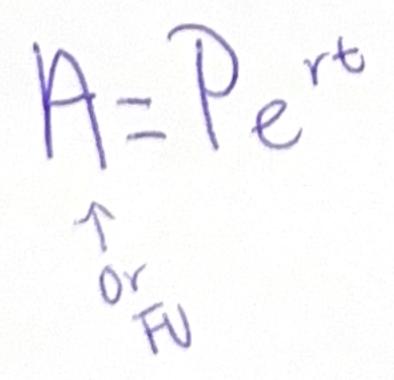
Sept. 29 Worksheet

1. Suppose a principal amount of 25,000 is deposited into a savings account with an annual interest rate of 5.5% compounded annually. Find the compound amount after 8 years and the interest earned.

2. A savings account with an initial deposit of 10,000 grows to 18,000 in 10 years. Assuming annual compounding, what is the annual interest rate?

3. How much money needs to be deposited today into an account with an annual interest rate of 4.5% compounded annually to have a balance of 8,500 in 7 years?

4. What is the formula for continuous compound interest?



5. Suppose that \$6500 is invested in a savings account at an annual rate of 4.5% compounded continuously for 6 years. What is the final amount?

FV= \$8514.77

6. What amount will an account have after 3 years if \$4000 is invested at an annual rate of 7%

Compounded monthly?

\$4931.70

Compounded continuously?

\$4934.71

7. What does APY stand for? What is that formula?

Annual Percentage Vield

 $AP \ \ - \ \ (1 + \ \ \ \ \)$ 8. Chase bank offers a savings account with a nominal annual interest rate of 1.5%

compounded daily. What is the APY for this account?

1.511%

9. Find the APY for each of the given money market accounts. Which offers a higher yield?

First United Bank: 3.49% compounded weekly

3.55%

CapTex Bank: 2.79% compounded daily

2.83%

Frost Bank: 3.64% compounded monthly

3.7%

Frost offers a higher yield.