

Name: **KET**

Date:

Test 2 Part 2 Review

1. \$4000 is deposited at the end of each ^{month} year into a savings account paying 9.2% interest compounded monthly. Find the ~~future~~ ^{present} value at the end of 13 years,

$$PV = 363,243.17$$

2. Samantha opens an account at Wells Fargo bank, which offers a rate of 4%. Samantha contributes \$1300 at the beginning of each month to the account. It is compounded monthly for the next 20 years. What is the value ~~after this time?~~ ^{at the beginning?}

$$PV = 215,243.51$$

3. A company borrows \$8 million to build a new wing at its headquarters, and they will pay it back after 15 years. If the company's deposits earn 7% interest, what is the payment that it should make at the end of each month into the sinking fund.

$$PMT = 71,966.26$$

4. ^{PV} \$90,000 is borrowed from your parents. They want you to pay the money back after 5 ^t years at 1.2% interest. What payment amount should they pay at the beginning of each month to meet these criteria? _{^{PMT}}

.012 ✓

$$m = 12$$

$$PMT = 1544.65$$

5. You pay \$450 at the end of each month for 16 years. The interest rate is 3%. What is the original account balance?

03.00

$$PV = 84,348.89$$

6. Create an amortization table if you are paying back a loan of 15,000 with a 3% interest rate after 8 years compounded at the end of each month.

$$PMT = \$175.94$$

balance $\times (\frac{r}{m})$



Payment number	Amount of payment	Interest for period	Portion to principal	Balance
0	175.94			15000
1	175.94	37.50	138.44	14861.56
2	175.94	37.15	138.79	14722.77
3	175.94	36.81	139.13	14583.64
4	175.94	36.46	139.48	14444.16
5	175.94	36.11	139.83	14304.33
6	175.94	35.76	140.18	14164.17
7	175.94	35.41	140.53	14023.64
8	175.94	35.06	140.88	13882.76
9	175.94	34.71	141.23	13741.53
10	175.94	34.35	141.59	13599.94

7. Create an amortization table if you are paying back a loan of 63,000 with a 1.3% interest rate after 14 years compounded at the end of each month.

$$PMT = 410.36$$

Payment number	Amount of payment	Interest for period	Portion to principal	Balance
0				63000
1	\$410.36	68.25	342.11	62657.89
2	\$410.36	67.88	342.48	62315.41
3	\$410.36	67.51	342.85	61972.56
4	\$410.36	67.14	343.22	61629.33
5	\$410.36	66.77	343.59	61285.74
6	\$410.36	66.39	343.97	60941.77
7	\$410.36	66.02	344.34	60597.43
8	\$410.36	65.65	344.71	60252.72
9	\$410.36	65.27	345.09	59907.63
10	\$410.36	64.90	345.46	59562.17

↓
and so on