

# Exponential Growth and Decay Bell Work

Solve the problem below involving exponential growth and decay using manual calculation.

A. There are 24 liters of water inside the container. Without a cover the water is reduce by 4% every hour due to evaporation. How much water will be left inside the container after 3 hours?

|    | Time | Calculation | Amount of Water |
|----|------|-------------|-----------------|
|    | 0    | -           | 24              |
| 1. | 1    |             |                 |
| 2. | 2    |             |                 |
| 3. | 3    |             |                 |

Solve the problem below involving exponential growth and decay using equation table.

B. Ronald is offered a job as a mechanic starting at \$700 per month. If he is guaranteed of 20% increase every 6 months, what will his salary be after 18 months?

|    | Time          | Calculation | Amount of Water |
|----|---------------|-------------|-----------------|
|    | 0             | -           | 700             |
| 4. | 1 - 6 months  |             |                 |
| 5. | 2 - 12 months |             |                 |
| 6. | 3 - 18 months |             |                 |
| 7. | t             |             |                 |

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

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**Solve the problem below involving exponential growth and decay using equation.**

C. Find the compound amount at the end of 6 years on the original investment of \$7000 at 9% interest at the following terms.

8. Compounded Annually

9. Compounded Semi-annually

10. Compounded Quarterly