

18. Graph the function y = $\frac{1}{4}$ · 4x

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| x | $\frac{1}{4}$ · 4x = | y | (x, y) |
| -2 |  |  |  |
| -1 |  |  |  |
| 0 |  |  |  |
| 1 |  |  |  |
| 2 |  |  |  |



1. Growth or Decay? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Asymptote \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Domain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. The number of bacteria in a pool doubles every 3 hours. If the pool has 3000 bacteria per cm3

at 8 am on Monday, how many bacteria are in the pool at 11 pm Monday night?

20. Suppose you invest $1500 in an account paying 4% annual interest. Find the account balance after twenty-five years if the account compounds semi-annually.

21. Suppose the acreage of forest is decreasing 2% per year because of development. If there are currently 4,500,000 acres of forest, determine the amount of forest land after 5 years.

22. The half-life of iodine-131 is 8 days. A patient receives a 12 mCi treatment. How much iodine is left in the patient 32 days later?