

1.  $y = -3$

2.  $(-\infty, 4]$

3.  $W = \frac{6}{5}t + 3$

4.  $f(x) = \begin{cases} x + 3 & \text{if } x < 0 \\ \sqrt{x} & \text{if } x \geq 0 \end{cases}$

5. 360

6.  $9x - 4$

7.  $f^{-1}(x) = \frac{3x + 2}{4}$

8.  $(0, 1)$

9. 8.6 billion

10.  $\log_3\left(\frac{1}{81}\right) = -4$

11.  $x = -2$

12. 4.9%

13. All of the statements are true.

14.  $\log_b\left(\frac{xy^2}{\sqrt[3]{z}}\right)$

15.  $x = \frac{\log 11}{2 \log 5}$