1. $a(c) = 20 - c$; $15.50

2. $t(c) = c + 273.15$; 373.15 K

3. $m(w) = 0.4w$; 6 lb

4. $f(x) = x - 9$

5. $f(x) = -x$

6. $y = -1.2x - 2.4$

7. $y = -\frac{4}{5}x + 2$

8. $f(x) = \frac{2}{5}x + 1$

9. a. A rule is a concise way of showing a function.

   b. A rule does not give specific x and y values.

10. a. $q(p) = \frac{1}{2}p$

   b. $q(f) = \frac{f}{32}$

11. a. $n(d) = 36d$

   b. $n(4) = 36(4) = 144$; 144 inches.

12. a. $p(s) = 4s$

   b. $p(7) = 4(7) = 28$; 28 cm

13. $y = 2x - 4$

14. $y = -\frac{1}{3}x - 2$

15. $y = 2$

16. $y = -\frac{1}{4}x + 1$

17. $y = 3x + 4$

18. $y = \frac{3}{4}x - \frac{1}{2}$

19. D

20. $y = 4x - 3$

21. $y = \frac{2}{5}x - 1\frac{1}{5}$

22. $y = -0.5x + 0.5$

23. a-b. $y = 2x - 3$

   c. The rules are the same. Because all four points are on the same line, you will get the same slope and y-intercept no matter which two points you choose.

24. $c(k) = 0.05691\ k + 7.77$

25. a. $c(k) = 0.04968k + 6.87$

    b. 315 kWh