8-17. See below:

    a. $(x - 6)(x + 2)$

    b. $(2x + 1)^2$

    c. $(x - 5)(2x + 1)$

    d. $(x + 4)(3x - 2)$

8-18. See below:

    a. x-intercepts $(-1, 0)$ and $(3, 0)$, y-intercept: $(0, -3)$

    b. x-intercept $(2, 0)$, no y-intercept

    c. x-intercepts $(-3, 0)$, $(-1, 0)$, and $(1, 0)$, y-intercept $(0, 2)$

    d. x-intercept $(8, 0)$, y-intercept $(0, -20)$

8-19. See below:

    a. $t(n) = \frac{1}{2} \left(\frac{1}{2} \right)^{n-1}$

    b. $t(n) = -7.5 - 2(n - 1)$

8-20. $50(0.92)^5 \approx \$32.95$

8-21. See below:

    a. $(6, 9)$

    b. $(0, 2)$

8-22. See below:

    a. $x = -\frac{10}{23}$

    b. all real numbers

    c. $c = 0$

8-23. $y = \frac{1}{4}x + 400$