2-31. See below.

  a. −2, 3

  b. (−2, 3); yes

2-32. See below.

  a. 20 square units

  b. 2,600 square units; subtract the x- and y-coordinates to find the length of the two sides.

2-33. See below.

  a. We do not know the angles are equal, because we do not know if $\overrightarrow{BD} \parallel \overrightarrow{EG}$

  b. The diagram does not have parallel line marks.

2-34. See below.

  a. $x = 17.5$ (corresponding angles)

  b. $x = 5$ (multiple relationships possible)

2-35. See below.

  a. 12 boys

  b. 22 girls

  c. $\frac{2}{3}$

  d. 7 boys left, 23 students, so $\frac{7}{23}$

2-36. See below.

  a. an isosceles triangle

  b. a rectangle