

1-63. Yes; yes; no

1-64. See below.

- a. Reflection
- b. Translation (or two reflections over parallel lines)
- c. Rotation or rotation and translation
- d. Rotation or rotation and translation depending on the point of rotation
- e. Reflection
- f. Reflection and then translation or rotation or both

1-65. $19 + 7x - 4 + 10x + 3 = 52$ so $x = 2$. Side lengths are 19, 10, and 23.

1-66. See below.

- a. Area \approx 16 square units
- b. Area \approx 15 square units

1-67. See below.

- a. $y = -4$
- b. $y = 25$
- c. $y = -2$