



**1-105.** (a) and (b) are perpendicular, while (b) and (c) are parallel.

**1-106. See below.**

- a. One possibility:  $4(5x + 2) = 48$
- b.  $x = 2$
- c.  $12 \cdot 12 = 144$  square units

**1-107. See below.**

- a.  $\frac{4}{52} = \frac{1}{13}$
- b.  $\frac{13}{52} = \frac{1}{4}$
- c.  $\frac{1}{52}$
- d.  $\frac{39}{52} = \frac{3}{4}$

**1-108. See below.**

- a. It looks the same as the original.
- b. Solution should be any value of  $45k$  where  $k$  is an integer.
- c. circle

**1-109. See solutions below.**

