Check Your Understanding (p. 217):

1. Infinitely many because you can multiply both terms in the ratio by any number.
2. Multiply both terms in 1:2 by a factor that will give the terms in the second ratio.
3. Five; 50:100, 25:50, 10:20, 5:10, 1:2.

Lesson 17-1 Practice (p. 217):

4. **a.** $\frac{3}{6} = \frac{1}{2}$, 1:2, 1 to 2; part-to-whole

    b. $\frac{2}{1}$, 2:1, 2 to 1; part-to-part

    c. $\frac{6}{5}$, 6:5, 6 to 5; whole-to-part

5. **a.** 28 cats; $\frac{4}{5} = \frac{28}{35}$

    b. 24 male cats: $\frac{6}{7} = \frac{24}{28}$

6. 9 white rabbits

7. Vet A saw 16 dogs: $\frac{2}{5} = \frac{16}{40}$, Vet B saw 15 dogs: $\frac{3}{8} = \frac{15}{40}$, 16 > 15. Vet A saw more dogs.

8. Yes. In the ratios $\frac{9}{10} = \frac{?}{30}$, 30 is 3×10, so ? is 3×9, or 27. $27 + 30 = 57$

9. 75 mice