Prealgebra: Practice Exam 1

1. Order from smallest to largest:

   (a)
   $$-5, -17, 0, 12 \tag{1}$$

   (b)
   $$\frac{1}{20}, \frac{1}{21} \tag{2}$$

   (c)
   $$-1\frac{1}{5}, -\frac{1}{7} \tag{3}$$

2. Solve:

   (a)
   $$n - 5 = -2 \tag{4}$$

   (b)
   $$n - 12 = 4 \tag{5}$$

   (c)
   $$n + 4 = 0 \tag{6}$$

   (d)
   $$x + \frac{1}{3} = 2 \tag{7}$$

(e)

$$x = 2 + 5 \times 2 \tag{8}$$

(f)

$$x = (3 + 7) \times 3 \tag{9}$$

(g)

$$x - \frac{2}{5} = \frac{3}{4} \tag{10}$$

3. Combine:

(a)

$$\frac{1}{4} + \frac{2}{3} \tag{11}$$

(b)

$$1\frac{1}{3} + 2 \tag{12}$$

(c)

$$\frac{2}{9} - \frac{3}{12} \tag{13}$$

4. A gaggle of geese is composed of black, grey, and white geese. $\frac{5}{12}$ of the geese are black and $\frac{1}{3}$ are grey. If there are 36 geese, how many are black? How many are grey? What fraction of the geese are white? Which is the dominant goose color?

5. There are two cakes. Cake A is cut into 5 pieces and Cake B is cut into 8 pieces. If Andrew eats 2 pieces of cake 8 and Beth eats 3 pieces of Cake B, how much of the total cake remains?

6. (a) Find the Greatest Common Factors of the following pairs of numbers:
   (a) (12,50) (b) (15,75) (c) (33,105)

(b) Find the Least Common Multiple of each pair of numbers:
(a) (3,5) (b) (24,52) (c) (4,9)

7. Solve:

$$\frac{1}{2}x + \frac{1}{8} = \frac{2}{16} \tag{14}$$

$$\frac{2}{9}x + \frac{1}{3} = \frac{12}{15} \tag{15}$$

8. The price of pencils is 10% more this week than it was last week. If pencils cost \$0.05 each this week, what was their cost last week?

9. Simplify:

(a)

$$\frac{-20}{20} \tag{16}$$

(b)

$$\frac{30}{0} \tag{17}$$

(c)

$$\frac{0}{-3} \tag{18}$$