Lesson 7.1.3 Homework

7-33. A homeowner must reduce the use of his home’s electricity. The home currently consumes 25.7 kwh (kilowatt hours) of electricity per day, and the homeowner must reduce the use by 20%. Find the amount of electricity that will be used after the reduction in two different ways, using two different scale factors.

7-34. Simplify the following expressions by combining like terms, making zeros, and using the Distributive Property. Using algebra tiles may be helpful.
   a. \((-1) + 4x + 2 + 2x + x\)
   b. \((-8x + 4 + (-3) + 10x\)
   c. \((-4) + 1x^2 + 3x + 4\)
   d. \(2(3x - 2)\)

7-35. Study the following division problems and the diagrams that represent them. Answer the question below each diagram.
   a. \(8 \div \frac{1}{3}\)

   How many thirds?

   b. \(8 \div \frac{1}{4}\)

   How many fourths?
7-37. Simplify each expression.

a. \( \frac{3}{4} \)

b. \( \frac{2}{3} (9 - 6) + 40 \)

c. \( 15 \div 5 + \frac{1}{2} \cdot \left( -\frac{4}{7} \right) \)

d. \( -\frac{7}{10} + \left( -\frac{5}{12} \right) - \left( \frac{1}{4} \right) \)

e. \( 4.25 - 7.06 \)

f. \( \frac{7}{8} - \left( -\frac{1}{10} \right) + \left( -\frac{3}{5} \right) \)