Name: _____   Date: _____

Section 8.3 Extra Practice

1. Show a check for each of the following.

a) $3(x - 5) = 18$

$x = 4$

b) $0.2(x + 3) = 1.4$

$x = 11$

c) $\dfrac{x+3}{5} = \dfrac{2}{3}$

$x = \dfrac{1}{3}$

2. Identify the error in each of the following. Then, write the correct solution.

a) $0.4(x + 2.2) = 5.4$

$0.4\,x + 2.2 = 5.4$

$0.4\,x = 3.2$

$x = 8$

b) $\dfrac{x+3}{5} = \dfrac{4}{7}$

$5\left(\dfrac{x+3}{5}\right) = \dfrac{4}{7}$

$x + 3 = \dfrac{4}{7}$

$x = \dfrac{-17}{7}$

3. Solve and check each of the following.

a) $2(x - 4) = 12$

b) $3(m + 0.5) = -2.1$

c) $1.2(x + 1.3) = 2.4$

d) $\dfrac{3}{4}(x - 8) = 7\dfrac{1}{2}$

e) $\dfrac{x+14}{4} = 2\dfrac{1}{2}$

f) $\dfrac{x-2}{3} = \dfrac{-7}{18}$

4. Solve.
   a) The perimeter of a square is 49.2 cm. The side length of the square is represented by the expression $(x + 4.1)$ cm. What is the value of x?
   b) A fraction has a denominator of 20. The numerator has a value of "x less than the denominator." If the fraction is equivalent to $\dfrac{1}{4}$, what is the value of x?
   c) Two cars leave Calgary at the same time, travelling in opposite directions. Their average speeds differ by 5 km/h. After 2 h, they are 210 km apart. Find the speed of each car.
   d) A number, plus one-third of itself, plus one-eighth of itself, equals 70. What is the number?