Section 8.3 Extra Practice

1. Show a check for each of the following.

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

$$x = 4$$

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 b) $0.2(x+3) = 1.4$ **c)** $\frac{x+3}{5} = \frac{2}{3}$

$$x = 11$$

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

$$x = 11 x = \frac{1}{3}$$

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

a)
$$0.4(x + 2.2) = 5.4$$
 b) $\frac{x+3}{5} = \frac{4}{7}$

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$$\frac{x+3}{5} = \frac{4}{7}$$

$$0.4 x + 2.2 = 5.4$$
 $5\left(\frac{x+3}{5}\right) = \frac{4}{7}$

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

$$0.4 x = 3.2 \qquad x+3 = \frac{4}{7}$$

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

$$x = 8$$

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

3. Solve and check each of the following.

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

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 b) $3(m+0.5)=-2.1$ **c)** $1.2(x+1.3)=2.4$

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

d)
$$\frac{3}{4}(x-8) = 7\frac{1}{2}$$
 e) $\frac{x+14}{4} = 2\frac{1}{2}$

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

- 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 $\frac{1}{4}$, 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?