Master 6.19

Extra Practice 2

Lesson 6.2: Using a Model to Solve Equations

1. a) Sketch balance scales to represent each equation.
b) Solve each equation.
Verify the solution.

i) $x + 7 = 12$ **ii)** $z + 3 = 9$
iii) $2y = 8$ **iv)** $4a = 20$
v) $2m + 1 = 13$ **vi)** $2p + 3 = 27$
vii) $k + k + 7 = 19$ **viii)** $5 + 3n = 20$

2. a) Write an equation for each sentence.
b) Solve each equation.
Verify the solution.

i) Seven more than a number is 29.
ii) A number increased by nine is 23.
iii) Four times a number is 24.
iv) Three more than twice a number is 25.
v) Six more than three times a number is 27.
vi) A number multiplied by twelve is 84.

3. Suppose the masses for balance scales are only available in multiples of 6 g.
a) Sketch balance scales to represent the equation: $18 + x = 42$
b) Solve the equation.
Verify the solution.

4. Suppose the masses for balance scales are only available in multiples of 8 g.
a) Sketch balance scales to represent the equation: $3x + 24 = 72$
b) Solve the equation.
Verify the solution.

5. Use this equation: $x + a = 15$
a) What value of a will give the solution $x = 9$?
b) What value of a will give the solution $x = 3$?