4.2 – Solve Multi-Step Equations Worksheet #2

MPM1D

1. Solve.

a) $6x + 3 + 2x = 19$

b) $10m - 3m + 8 = 43$

c) $4a + a + 9 = 44$

d) $15 - 3b + b = 3$

e) $2y + 4 + 3y = 9$

f) $7f - 12 + f = 20$

g) $9q + 2 - 8q - 13 = 0$

h) $8 - 3k + 5k = 0$

2. Find each root.

a) $3b + 4 = 2b + 6$

b) $7p - 18 = 3p - 2$

c) $2x + 4 = 5x - 5$

d) $8g + 3 = g + 10$

e) $6h - 5 = 2h + 3$

f) $4m - 9 = m + 7$

g) $5r - 6 = 2r + 3$

h) $-3y + 15 = y - 13$

3. Solve.

a) $4(x - 3) = 3x - 7$

b) $2(a - 8) + 3(a + 6) = 17$

c) $3(2p + 1) = 5(p + 1)$

d) $5d = 4(d + 2)$

e) $2(3t + 5) - 4(2t - 1) = 6$

f) $5(k + 3) = 2(4k + 7) - 5$

4. Solve, then check.

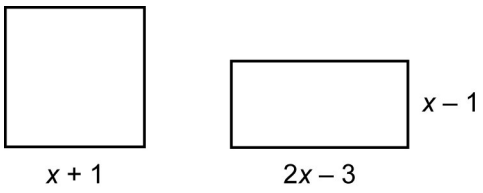
a) $2m + 1 - m = 4$

b) $q + 4 + 2q - 19 = 0$

c) $g - 3 + 4g = 2g - 6$

d) $2(2b + 7) = 3(b + 3) + 3$

5. A square and a rectangle have the same perimeter. Find the side lengths of each figure.



6. In a triangle, the measure of the middle angle is triple the measure of the smallest angle, and the measure of the largest angle is 55° greater than the measure of the smallest angle. Find the measures of the angles.

 Name_____

Two-Step Equations

Date_____ Period____

Solve each equation.

1) $6 = \frac{a}{4} + 2$

2) $-6 + \frac{x}{4} = -5$

3) $9x - 7 = -7$

4) $0 = 4 + \frac{n}{5}$

5) $-4 = \frac{r}{20} - 5$

6) $-1 = \frac{5 + x}{6}$

7) $\frac{v + 9}{3} = 8$

8) $2(n + 5) = -2$

9) $-9x + 1 = -80$

10) $-6 = \frac{n}{2} - 10$

11) $-2 = 2 + \frac{v}{4}$

12) $144 = -12(x + 5)$

13) $-15 = -4m + 5$

14) $10 - 6v = -104$

15) $8n + 7 = 31$

16) $-9x - 13 = -103$

17) $\frac{n + 5}{-16} = -1$

18) $-10 = -10 + 7m$

19) $-10 = 10(k - 9)$

20) $\frac{m}{9} - 1 = -2$

21) $9 + 9n = 9$

22) $7(9 + k) = 84$

23) $8 + \frac{b}{-4} = 5$

24) $-243 = -9(10 + x)$