4.2 – Solve Multi-Step Equations Worksheet #2
MPM1D
Jensen

1. Solve.
   a) $6x + 3 + 2x = 19$

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

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

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

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

2. Find each root.
   a) $3b + 4 = 2b + 6$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3. Solve.

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

f) $5(k + 3) = 2(4k + 7) - 5$
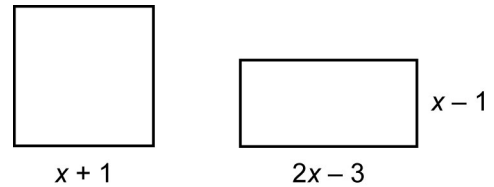
4. Solve, then check.

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.

$x + 1$ $2x - 3$ $x - 1$

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.

ANSWERS

1. **a)** 2   **b)** 5   **c)** 7   **d)** 6
    e) 1   **f)** 4   **g)** 11   **h)** -4
2. **a)** 2   **b)** 4   **c)** 3   **d)** 1

    e) 2   **f)** $\dfrac{16}{3}$ **g)** 3   **h)** 7

3. **a)** 5   **b)** 3   **c)** 2
    d) 8   **e)** 4   **f)** 2
4. **a)** 3   **b)** 5   **c)** -1 **d)** -2
5. square: 7; rectangle: 5 by 9
6.   25°, 75°, 80°