


Problem Set

1.
 - a. Write two equivalent expressions that represent the rectangular array below.


 - b. Verify informally that the two expressions are equivalent using substitution.
2. You and your friend made up a basketball shooting game. Every shot made from the free throw line is worth 3 points, and every shot made from the half-court mark is worth 6 points. Write an equation that represents the total number of points, P , if f represents the number of shots made from the free throw line, and h represents the number of shots made from half-court. Explain the equation in words.
3. Use a rectangular array to write the products in standard form.
 - a. $2(x + 10)$
 - b. $3(4b + 12c + 11)$
4. Use the distributive property to write the products in standard form.
 - a. $3(2x - 1)$
 - b. $10(b + 4c)$
 - c. $9(g - 5h)$
 - d. $7(4n - 5m - 2)$
 - e. $a(b + c + 1)$
 - f. $(8j - 3l + 9)6$
 - g. $(40s + 100t) \div 10$
 - h. $(48p + 24) \div 6$
 - i. $(2b + 12) \div 2$
 - j. $(20r - 8) \div 4$
 - k. $(49g - 7) \div 7$
 - l. $(14g + 22h) \div \frac{1}{2}$
5. Write the expression in standard form by expanding and collecting like terms.
 - a. $4(8m - 7n) + 6(3n - 4m)$
 - b. $9(r - s) + 5(2r - 2s)$
 - c. $12(1 - 3g) + 8(g + f)$