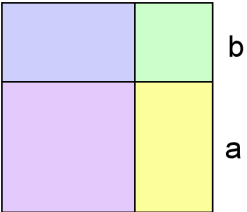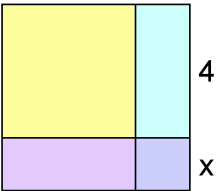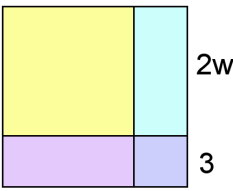# Special Products

1. Write a four-part expression for the area of the whole rectangle and simplify it.
   Also, write the area of each individual part in the picture.

a.

$A = (a + b)(a + b) =$

b.

$A = (4 + x)(4 + x) =$

c.

$A = (2w + 3)(2w + 3) =$

2. Multiply.

a. $(x + 3)(x + 3)$

b. $(x - 5)^2$

Write the special products:

$(a + b)^2 =$

$(a - b)^2 =$

$(a + b)(a - b) =$

c. $(c - 3)(c + 3)$

d. $(5y - 1)^2$

e. $(2b - 6)(2b + 6)$

f. $(w^2 + 2)^2$

g. $(10 - 3x)(3x + 10)$

h. $(5a - 3b)(5a + 3b)$

i. $\left(\frac{1}{3}x + 12\right)\left(\frac{1}{3}x - 12\right)$

j. $\left(\frac{5}{9}m + n\right)^2$

k. $\left(\frac{2}{7}m - \frac{4}{7}n\right)^2$

l. $(3s + 2r)^2$

m. $(0.1s - 0.2r)^2$

3. Multiply.

a. $(x + 3)^2(x - 4)$

b. $(3n - m)(m - 1)(3n + m)(m + 1)$