4.3 Multiplying and Dividing Monomials

Modelling using algebra tiles

+ blank
− fill

1. $(3x)(2x)$

$= 6x^2$

×	x	x	x
x	x^2	x^2	x^2
x	x^2	x^2	x^2

multiplying coefficients or constants AND using the exp. law for mult.

2. $(5x)(-x)$

$= 5(-1)(xx)$

$= -5x^2$

3. $(4t^3)(3t^2)$

$= (4)(3)(t^3t^2)$

$= 12t^5$

4. $(2y^2)(5y^8)$

$= (2)(5)(y^2y^8)$

$= 10y^{10}$

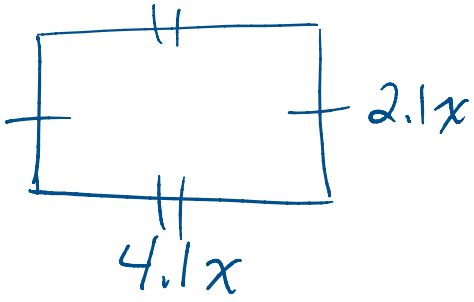
$= 10y^{10}$

5. $(3.2m^4)(4)$

$= (4)(3.2)\ m^4$

$= 12.8\ m^4$

6.



$A = \ell w$

$= (4.1x)(2.1x)$

$= (4.1)(2.1)(x \cdot x)$

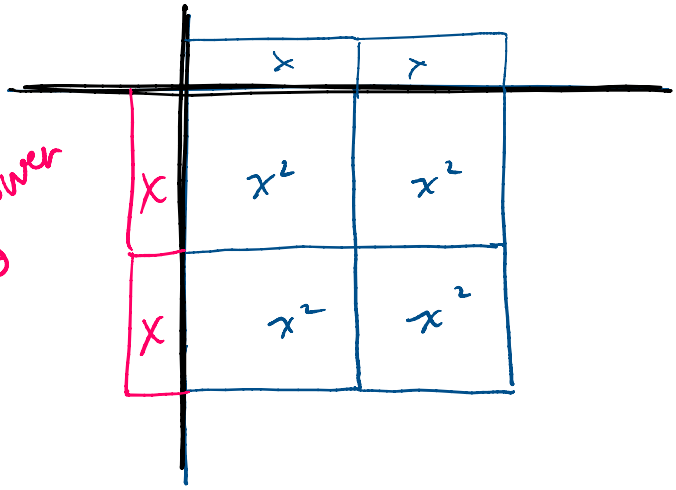
$= 8.61x^2$

model division with tiles

① $\frac{4x^2}{2x}$

$= 2x$

answer →



② $\frac{-6x}{2x}$

↓

divide coeff. or constants

AND

subtract exponents for variables

$\frac{x^0}{x^0} = 1$

$= -3x^0 = -3$

$x^0 = 4^0 = 1000^0 = 1$

3. $\dfrac{15x^5}{3x^2} = 5x^3$

4. $\dfrac{25}{35}\dfrac{c^4t^8}{c^2t^2}$ $\quad c^{4-2}t^{8-2}$

lowest terms

$= \dfrac{5}{7}c^2t^6$

5. $A = 18p^2 + 4p$

$A = lw$

$\dfrac{A}{l} = w$

$= \dfrac{18p^2}{4p} = \dfrac{9}{2}p$

p 115 # 1a, 2, 4, 5, 8-13, 15, 16