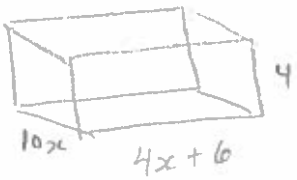
C: Dividing Polynomials by Monomials Continued

Examples:

1. A truck holds $20\ m^3$ of water. The pool is rectangular with the dimensions of $(4x+6)$ by $10x$ by 4, in metres. Determine the expression that represents the number of truck loads of water needed.



$V = lwh$

$= (4x+6)(10x)(4)$

$= (40x^2 + 60x)(4)$

$V = 160x^2 + 240x$

$$\frac{160x^2 + 240x}{20}$$

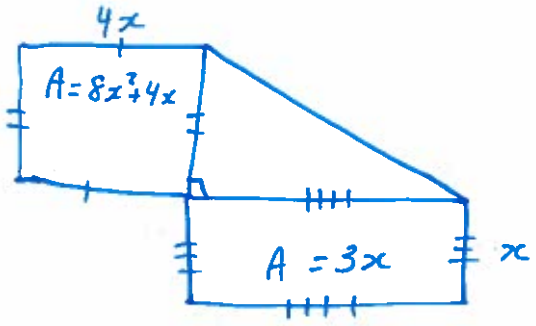
$$= 8x^2 + 12x$$

2. The area of a wall is $15x^2 + 6.7x$. One can of paint covers an area of $1.7x$. What polynomial to the nearest hundredth represents the number of cans of paint needed to cover the walls?

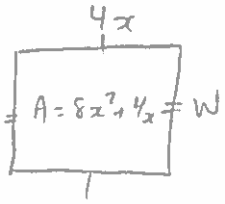
$$= \frac{15x^2 + 6.7x}{1.7x}$$

$$= 8.82x + 5.71$$

3.



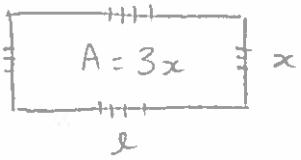
- What is the area of the triangle?



$A = lw$

$\frac{8x^2 + 4x}{4x} = \frac{4x(w)}{4x}$

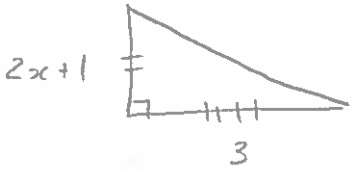
$2x + 1 = w$



$A = lw$

$\frac{3x}{x} = \frac{l(x)}{x}$

$3 = l$



$A = \frac{1}{2}bh$

$= \frac{1}{2}(3)(2x+1)$

$= \frac{3}{2}(2x+1)$

$= \frac{6}{2}x + \frac{3}{2}$

$= 3x + \frac{3}{2}$

Assignment Pg. 276 # 10 - 14, 16