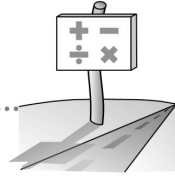


3.1.4 How do I handle what remains?

Polynomial Division



#49 Complete the following area models to compute the given products. State the resulting product in simplified form.

$(x - 3)(2x^3 + x^2 - 2x + 1)$

	$2x^3$	$+x^2$	$-2x$	$+1$				
x								
-3								
_____	x^4	_____	x^3	_____	x^2	_____	x	_____

#50 Now work backwards from the process you used in problem 3-49. Use an area model to compute each of the missing components in the following equations.

a. $(?)(x + 2) = (x^4 - x^3 - 4x^2 + 8x + 8)$

b. $(x^3 - 5x^2 + 8) \div (x - 2) = ?$

#51 Complete the following division problem in two different ways: once using an area model and once using long division. Express the remainder as a fraction.

$$(6x^3 - 5x^2 + 5x + 8) \div (2x - 1)$$

Area Model

Long Division

How are these methods similar? Which method do you prefer?