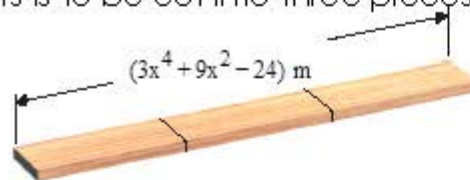


A board of length  $(3x^4 + 9x^2 - 24)$  meters is to be cut into three pieces of the same length. Find the length of each piece.



### The Division Algorithm (Long Division)

For polynomials  $P$  and  $D$ , the **division algorithm** gives  $\frac{P}{D} = Q + \frac{R}{D}$ ,  $D \neq 0$  where  $Q$  and  $R$  are polynomials and the **degree of  $R <$  degree of  $D$** .

Example 2: Divide.  
a. Divide 579 by 16