4.2 Long Division

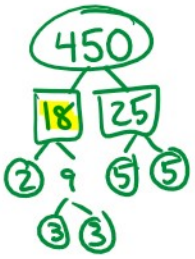
Wednesday, June 19, 2019

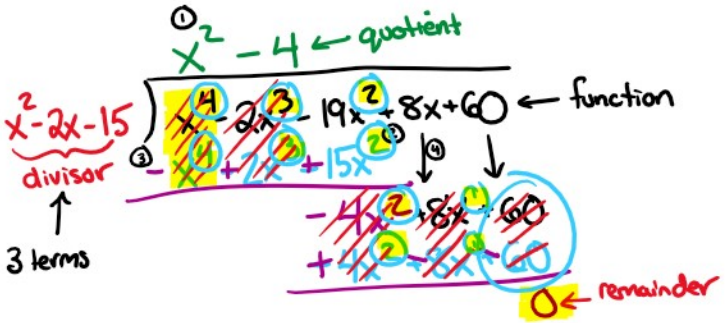
$$\frac{2x^3+2x^2-72x-72}{(x+6)} = 2x^2-10x-12$$

$2(x^2-5x-6)$

$2(x-6)(x+1)$

FACTORING / QUADRATIC FORMULA / LONG DIVISION





$$f(x) = x^4-2x^3-19x^2+8x+60$$

$$(x^2-2x-15)(x^2-4)$$

$$(x-5)(x+3)(x+2)(x-2)$$

$x=5 \quad x=-3 \quad x=-2 \quad x=2$

Two Rules of Long Division:

① The function and divisor must both be written in numerical exponent order

greatest exponent ..... constant term

1ST ..... Last

② You must insert zero placeholders for any missing powers of x (including constant term) for both function and divisor