

perform operation on the right side of the equation  $-5x(2x-3)+5x^2-3$

**Find type of expression on the right side**

right side has the form of the multiplication of the polynomial by monomial  
 $a(bx+c)+fx^2+gx+h$

**multiply the polynomial  $2x-3$  by monomial  $-5x$**

multiply each term in the polynomial (in parenthesis)  $(2x-3)$  by monomial  $-5x$   
expression in parentheses has 2 term

multiplying a polynomial by a monomial is to use the distributive property of multiplication \*

that is to multiply each term in the binomial by the monomial eg.  $a(b+c)=ab+ac$

multiply coefficients  $-5*2=-10$  add factors  $1+1=2$   $-5x*2x=-10x^2$

multiply coefficients  $-5*-3=12$  add factors  $1+0=1$   $-5x*-3=-15x$

the result of multiplication is polynomial  $-10x^2+15x$

insert the result of multiplication into equation

$$-5x(2x-3)+5x^2-3=-10x^2+15x+5x^2-3$$

simplify the result of multiplication by combining like terms  $-10x^2+15x+5x^2-3$

**find and combine like terms in polynomial  $-10x^2+15x+5x^2-3$**

The result of performing all operations on the right side of equation is the polynomial  
 $-5x^2+15x-3$

**Insert this result into equation**

$$-9x^2-4x+20=-5x^2+15x-3$$