Multiplication of algebraic Terms and Expression

i) Multiplication of Sign

− X − = + **(Division** of sign is same as multiplication, i.e., − ÷ + = −)
− X + = −
+ X − = −
+ X + = +

If there is no sign in front there is "+"

ii) Multiplication of coefficient (number) . If there is no coefficient there is 1.

iii) Multiplication of bases: When same bases are multiplied then their power will be added. $a^3 \times a^2 = a^{(3+2)} = a^5$

Worked out example.

$-5x^2y \times 3xyz$

$-15x^3y^2z$ (Write all the bases then adjust the power: $x^{(2+1)}y^{(1+1)}z^1$, Power 1 no need to write, if there is no power there is 1)

1) Multiply the followings.

a) $2x$ and x^2 =_____

b) $2 \times m \times n$ =_____

c) $p \times 3 \times q$ =_____

d) $2x$ and -3 =_____

e) m^4 and m^2 =_____

f) $2x^3$ and $3y^2$ =_____

g) $5xyz$ and $-3x^2y^3$ =_____

h) $5mn$ and $3pq$ =_____

i) p^2 and $-6p^2q$ =_____

j) 3 and $5m$ =_____

k) $12a^2b$ and $-5ab$ =_____

l) $-7a^2$ and $3b$ =_____

2) Multiply and complete the table. Some examples are done for you.

X	$-5x^4$	$3p^2$	x^7	$-13x^4$	p
x					
$-3p$		$-9p^3$			
$7xy$					
$3p$					
-5					$-5p$