H/W
3.11.21

Identities :-

1. Use direct method to evaluate the following product:-

i. $(x+8)(x+3)$
$x^2+(8+3)x+8\times 3$ · $x^2+11x+24$

ii. $(y+5)(y-3)$
$y^2+-3y+5y-15$
$y^2+2y-15$

iii. $(a-8)(a+2)$
$a^2+2a-8a-16$
$a^2-6a-16$

iv. $(5a+16)(3a-7)$
$(3a\times 5a)+(5a\times -7)+(16\times 3a)+(6\times -7)$
$15a^2+(-35a)+48a+(-112)$
$15a^2-35a+48a-112$
$15a^2+13a-112$

iv) $(8-6)(3+6)$
$(8\times 3)+(8\times 6)+(-6\times 3)+(-6\times 6)$
$24+86-36-6^2$
$24+56-6^2$

2. Use direct method to value:

i. $(x+1)(x-1)$
$(x)^2-(1)^2$
x^2-1

ii. $(2+a)(2-a)$
$(2)^2-(a)^2$
$4-a^2$

iii) $(3b-1)(3b+1)$
$(3b)^2-(1)^2$
$9b^2-1$

iv) $(4+5x)(4-5x)$
$(4)^2-(5x)^2$
$16-25x^2$

v) $(2a+3)(2a-3)$
$(2a)^2-(3)^2$
$4a^2-9$

vi) $(xy+4)(xy-4)$
$(xy)^2-(4)^2$
x^2y^2-16

vii) viii) $(ab+x^2)(ab-x^2)$

$a^2b^2 - x^4$

viii) $(3x^2+5y^2)+(3x^2-5y^2)$

$= (3x^2)^2 - (5y^2)^2$

$= 9x^4 - 25y^4$