i) $8x + 5x = 13x$

ii) $8x - 5x = 3x$

iii) $6xy^2 + 9xy^2 = 15xy^2$

iv) $6xy^2 - 9xy^2 = -3xy^2$

v) The sum of $8a$, $6a$ and $5b$

$= 8a + 6a + 5b = 14a + 5b$

vi) The addition of 5, $7xy$, 6 and $3xy$

$= 5 + 6 + 7xy + 3xy = 11 + 10xy$

vii) $4a + 3b - 7a + 4b$

$= 4a - 7a + 3b + 4b = -3a + 7b = 7b - 3a$

ix) $6x^2y + 13xy^2 - 4x^2y + 2xy^2$

$= 6x^2y - 4x^2y + 13xy^2 + 2xy^2 =$

$2x^2y + 15xy^2$

viii $-15x + 13x + 8$

$= -2x + 8 = 8 - 2x$

x $16x^2 - 9x^2 = 7x^2$ and $25xy^2$

$- 17xy^2 = 8xy^2$

3i $3m + 12m - 5m$

$= 15m - 5m$

$= 10m$

..

ii $7n^2 - 9n^2 + 3n^2$

$= 7n^2 + 3n^2 - 9n^2$

$= 10n^2 - 9n^2$

$= 1n^2$

...

iii $25zy - 8zy - 6zy$

$= 25zy - 14zy$

$= 11zy$

.

iv $-5ax^2 + 7ax^2 - 12ax^2$

$= -5ax^2 - 12ax^2 + 7ax^2$

$= -17ax^2 + 7ax^2$

$= -10ax^2$

v $-16am + 4mx + 4am - 15mx + 5am$

$= -16am + 4am + 5am + 4mx - 15mx$

$= -16am + 9am + 4mx - 15mx$

$= -7am - 11mx$

EX - 11 (B)

2i $-9x$, $3x$ and $4x$

$= -9x + 3x + 4x$

$= (-9+3+4)x$

$= (-6+4)x$

$= -2x$

∴

ii $23y^2$, $8y^2$ and $-12y^2$

$= 23y^2 + 8y^2 + -12y^2$

$= (23 + 8 + -12)y^2$

$= (31 - 12)y^2$

$= 19y^2$

5 i $3x + 8y + 7z + 6y + 4z - 2x$ and

$= 3x - 2x - 4x + 8y + 6y + 3y + 7z + 4z + 6z$

$= 3x - 6x + 17y + 17z$

$= -3x + 17y + 17z$

∴

ii $3a + 5b + 2c + 2a + 3b - c$ and $a + b + c$

$= 3a + 2a + a + 5b + 3b + b + 2c - c + c$

$= 6a + 9b + 3c - c$

$= 6a + 9b + 2c$

...

iii $4x^2 + 8xy - 2y^2$ and $8xy - 5y^2 + x^2$

$= 4x^2 + x^2 + 8xy + 8xy - 2y^2 - 5y^2$

$= 5x^2 + 16xy - 7y^2$

iv $9x^2 - 6x + 7$ and $5 - 4x$ and $6 - 3x^2$

$= 9x^2 - 3x^2 - 6x - 4x + 7 + 5 + 6$

$= 6x^2 - 10x + 18$