22/12 HW

Ch - 11

11 (B)

1) ~~constant~~

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 14a + 5b

2)

i) $-9x + 3x + 4x = -2x$

ii) $23y^2 + 8y^2 + (-12y^2) = 19y^2$

3)

i) $3M + 12M - 5M$

$= 15 - 5 = 10M$

iii) $7n^2 - 9n^2 + 3n^2$

$= 7n^2 - 6n^2$

$= 1n^2$

4) i) $(a+b) + (2a+3b)$

$=$ ~~ab + 5ab~~ $3A + 4B$

~~= 3ab~~

ii) $(2x + y) + (3x - 4y)$

$= 5x - 3y$

5 v) $5x^2 - 2xy + 3y^2$, $-2x^2 + 5xy + 9y^2$ and

$$
\begin{array}{r}
5x^2 - 2xy + 3y^2 \\
-2x^2 + 5xy + 9y^2 \\
\hline
3x^2 - 3xy - 4y^2 \\
\hline
8x^2 + 2xy + 8y^2
\end{array}
$$

vi) $a^2 + b^2 + 2ab$

$$
\begin{array}{r}
2b^2 + 2bc \\
4c^2 - a^2 + 2ac \\
\hline
3b^2 + 2ab + 2bc + 2ac + 5c^2
\end{array}
$$

6)

i) x and $3y$

$x + 3y$

ii) $-2a$ and $+5$

$= -2a + 5$

7) side of triangel are $2x + 3y + 5y$ and $7x - 2y$

perimeter = sum of all three sides of triangel

$2x + x + 7x + 3y + 3 - 2y$

$= 10x + 8y - 2y$

$= 10x + 6y$

8) side of rectiangel are 6a + 9b and 8a - 4b

we know that

perimeter = 2 (lenght + breath)

= 2 (6a + 9b + 8a - 4b

= 2 (14a + 5b)

= 28a + 10b

9)

i) 2a + b, a + b

= (2a + b) - (a + b)

= 2a + b - a - b

= 2a - a + b - b

= a

ii) (-2b + 2c, b + 3c

= (-2b + 2c) - (b + 3c)

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

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

$= -3b - c$

10)

i) $4x$ from $8 - x$

$= (8 - x) - 4x$

$= 8 - x - 4x$

$= 8 - 5x$

ii) $-8c$ from $c + 3d$

$= (c + 3d) - (-8c)$

$= c + 3d + 8c$

$= 9c + 3d$