3. i) $4pq \times 2r = (4 \times 5 \times 3) \times [2 \times 1/2]$

$= 60 \times 1 = 60$

ii) $\frac{yx}{z} = \frac{4 \times 8}{16} = \frac{32}{16} = 2$

iii) $\frac{a+b-c}{2a} = \frac{(5+7)-2}{2 \times 5} = \frac{12-2}{10} = \frac{10}{10} = 1$

iii) $(15b - 6b) - (8b + 4b)$
$= 15b - 6b - 8b - 4b$
$= -3b$

iv) $-(-4a - 8a)$
$= +4a + 8a$
$= 12a$

v) $x - (x - y) - (-x + y)$
$= x - x + y + x - y$
$= x$

vi) $P + (-q - r - s) - (p - q - r)$
$= P - q - r - s - p + q + r$
$= -s$

vii) $(a + b) - (c + d) - (e - f)$
$= a + b - c - d + e + f$

viii) $3x + (8x - 5x) - (7x - x)$
$= 3x + 8x - 5x - 7x + x$
$= 0$

ix) $a - (a - b - c)$
$= a - a + b + c$
$= b + c$

x) $6a^2 + (2a^2 - a^2) - (a^2 - b^2)$
$= 6a^2 + 2a^2 - a^2 - a^2 + b^2$
$= 6a^2 + b^2$

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xi) $2m-(3m+2n-6n)$
$=2m-3m-2n+6n$
$=\cancel{2m}\ 4n-m$

xii) $-m-n-(-m)-m$
$=-m-n+m-m$
$=-m-n$

xiii) $x+y-(x+\overline{y+x})$
$=x+y-x+y+x$
$=+x$

xiv) $25y-(5x-10y+6x-3y)$
$=\cancel{25y}-\cancel{15x}+\cancel{10y}-\cancel{6x}+\cancel{3y}\ 3y$
$=\cancel{3y}\ 38y-11x$

xv) $3x+(2x-\overline{x+2})$
$=3x+2x-x+2$
$=4x-2$

xvi) $a-(2a-\overline{4a+3a})$
$=a-(2a+4a-3a)$
$=a-2a+4a-3a$
$=6a$

xvii) $5x^2-(3x-\overline{x^2-4})$
$=5x^2-3x+x^2-4$
$=\cancel{5x^2}\ 6x^2-3x-4$

xviii) $-(y-x)-(x+y-\overline{2x+y})$
$=-y+x-(x+y-2x-y)$
$=-y+x-x-y+2x+y$
$=2x-y$

1 i) $2a+b-c = 2a+(b-c)$

ii) $3x-z+y = 3x-(z+y)$

iii) $6p-5x+q = 6p-(5x+q)$

iv) $a+b-c+d = a+(b-c+d)$

v) $5a+4b+4x-2c = 4x-(2c-5a-4b)$

vi) $7x+2z+4y-3 = -3+4y+(2z+7x)$

vii) $3n-2n+6 = 6-(2n-3n)$

viii) $2l+x-p-q+s = 2l+x-(p+q-s)$