20. A

3. i) $4pq \times 2r = (4 \times 5 \times 3) \times (2 \times \frac{1}{2})$

$= 60 \times \cancel{2} \times 1$

$\cancel{2}$

$= 60$

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

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

20. B

(2) i) $12x-(5x+2x) = \cancel{12x-5x+2x}\ 12x-7x$

$= 5x$

ii) $10m+(4n-3n)-5n = 10m+n-5n = 10m-4n$

iii) $(15b-6b)-(8b+4b) = 9b-12b = -3b$

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

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

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

$= -s$

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

viii) $3x+(8x-5x)-(7x-x) = 3x+3x-6x = 0$

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

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

xi) $2m-(3m+2n-6n) = 2m-(3m-4n) = 2m-3m+4n = -m+4n$ (4n-m)

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

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

xiv) $25y-(5x-10y+6x-3y) = 25y-(11x-13y) = 25y-11x+13y$
$= 25y+13y-11x = 38y-11x$

xv) $3x+(2x-x+2) = 3x+(2x-x-2) = 3x+x-2 = 4x-2$

xvi) $a-(2a-4a+3a) = a-(2a-7a) = a-(-5a) = a+5a = 6a$

xvii) $5x^2-(3x-x^2-4) = 5x^2-(3x-x^2+4) = 5x^2-3x+x^2-4$
$= 5x^2+x^2-3x-4 = 6x^2-3x-4$

xviii) $-(y-x)-(x+y-2x+y) = -(y-x)-(x+y-2x-y)$
$= -(y-x)-(-x) = -y+x+x = 2x-y$

Ex - 20.C

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) $5a+4b+4x-2c = 4x-(4b-5a+2c)$
   vi) $7x+2z+4y-3 = -3+4y+(7x+2z)$
   vii) $3m-2n+6 = 6-(3m+2n)$
   viii) $2t+r-p-q+s = 2t+r-(p+q-s)$