

QT Multiplying out brackets

1. Multiply out the brackets and simplify where possible

a.	$4(x + y + z)$	b.	$5(x + y - z)$
c.	$x(x + 6)$	d.	$x(x - 9)$
e.	$-3(x + 2)$	f.	$-4(x - 5)$
g.	$7a(a + b + c)$	h.	$5b(a - b + c)$
i.	$a - 4(a + b)$	j.	$4(x + 2) + 2(x + 1)$
k.	$7(x - 2) - 2(x - 1)$	l.	$4e(e + 2f) + 2f(e - f)$

2. Multiply out the brackets and simplify where possible

a.	$(x + 2)(x + 3)$	b.	$(x + 3)(x - 3)$
c.	$(x - 3)(x + 4)$	d.	$(6 + x)(7 + x)$
e.	$(x + 100)(x + 3)$	f.	$(2x + 4)(2x + 3)$
g.	$(x - 3)(x - 3)$	h.	$(x - 4)(x - 5)$
i.	$(4x + 6)(3x + 3)$	j.	$(3x + 2y)^2$

3. Find the product of $5x - 2$ and $4x + 3$

4. A rectangular swimming pool has a length of $(3x + 2)$ metres and a width of $(x - 5)$ metres.

Write down a simplified expression for

a. the pond perimeter

b. the ponds area