BINOMIALS

1. Multiply the following binomials.

a) $(k + 3)(k + 2) =$	**b)** $(g + 4)(g – 3) =$
c) $(t – 5)(t + 4) =$	**d)** $(v – 3)(v + 7) =$
e) $(3 + m)(1 + m) =$	**f)** $(d – 3)(d – 4) =$
g) $(2n + 3)(n + 2) =$	**h)** $(3k + 2)(k – 3) =$
i) $(2a + 7)(2a + 3) =$	**j)** $(2h + 3)(3h – 1) =$
k) $(2e – 1)(3e + 4) =$	**l)** $(q – 1)^2 =$
m) $(r + 3)^2 =$	**n)** $(v – 5)^2 =$
o) $(2g + 1)^2 =$	**p)** $(2h – 5)^2 =$
q) $(2w – 7)^2 =$	**r)** $(a + 3)(a – 3) =$
s) $(2h + 3)(2h – 3) =$	**t)** $(3p + 5q)(3p – 5q) =$
u) $(5t + v)(5t – v) =$	**v)** $(3t –5)(t + 2) =$
w) $(3u – 4)(2u – 5) =$	**x)** $(n – 5)(4n + 7) =$
y) $(2q – 5)(3q + 5) =$	**z)** $(3w + 7z)^2 =$

2. Simplify.

a) $(k + 3)(k + 2) + 3(k + 4) =$	**b)** $(m + 3)(m – 2) + 4(m + 2) =$
c) $(h – 3)(h – 2) + 3(h – 1) =$	**d)** $(x – 4)(x + 2) – 2(x + 1) =$
e) $2(q + 5)(q + 2) =$	**f)** $3(n – 3)(n + 4) =$
g) $2(c – 3)(c – 4) =$	**h)** $-2(y + 2)(y + 4) =$
i) $-4(z + 3)(z – 4) =$	**j)** $(a + 5)(a – 3) + 3(a + 4)(a – 3) =$
k) $2(2c + 1)(c – 2) + (3c + 1)(c – 1) =$	**l)** $(k + 2)(k + 3) – 2(k + 3)(k – 4) =$
m) $(n – 2)(2n – 1) + 3(n + 2)(2n + 1) =$	**n)** $3(2x + 3)(2x – 1) – 2(x + 3)(x + 2) =$

o) $2(a + 3)^2 =$	**p)** $3(m - 2)^2 =$
q) $-2(m - 4)^2 =$	**r)** $-(x + 3)^2 =$
s) $-(x - 5)^2 =$	**t)** $(k + 3)^2 + (k + 2)^2 =$
u) $(h - 2)^2 + (h - 3)^2 =$	**v)** $(2x + 1)^2 + (x + 2)^2 =$
w) $2(y - 2)^2 + 3(y + 3)^2 =$	**x)** $3(z - 1)^2 + 2(z - 2)^2 =$
y) $3(t - 1)2 - 2(t + 1)2 =$	**z)** $(t - 3)^2 - 3(t + 1)^2 =$
aa) $2(v - 3)^2 - 2(v + 2)(v - 3) =$	**bb)** $2(m - 3)^2 + 3(m - 3)(m + 2) =$
cc) $3(x + 3)(x - 3) - (x + 3)^2 =$	**dd)** $-(y + 3)^2 - 2(y - 3)(y + 3) =$