

Brackets & Equations

Practice Examples:

1. Break the following brackets.

a) $5(x-4)$

b) $-2(x-5)$

c) $-3(2x+1)$

d) $5(3x+2)$

2. Simplify the following.

a) $6-2(y+1)$

b) $5-(n-1)$

c) $10+4(x-2)$

d) $4+(8w-1)$

e) $3(x-2)-2(x+1)$

3. Solve the following equations (multiply any brackets out first)

a) $3(y-1)=15$

b) $5(u+1)+3=18$

c) $5(x-1)=3(x+1)$

d) $5(k-3)=3(k-1)$

e) $5-2(x+1)=x$

f) $x-3(x-2)=3(2-x)$

g) $6(x-1)-5=4-(x+1)$

4. Multiply out these brackets using FOIL

a) $(x+3)(x+2)$

b) $(m+1)(m+1)$

c) $(u-5)(u-6)$

d) $(z-4)(z+5)$

e) $(2c-4)(3c-2)$

Practice Examples: (Continued)

5. By using the multiplication table shown below; multiply out $(x+3)(x^2-2x+3)$
Part of it has been completed for you.

	x^2	$-2x$	3
x	x^3	$-2x^2$	
3			

Now try these on your own:

- a) $(x+2)(x^2-3x+1)$
b) $(x-3)(x^2+x-3)$
c) $(x-1)(x^2-2x-4)$
6. Multiply out these brackets
- a) $(p+1)^2$
b) $(m-2)^2$
c) $(m-n)^2$
d) $(2x-3)^2$
e) $(x-3y)^2$
f) $\left(x-\frac{1}{x}\right)^2$
7. Solve these equations
- a) $x^2-x(x+3)=6$
b) $(t-5)^2=(t-1)^2$
c) $(4p+1)(p-1)=(2p-1)^2$

Check your answers using the solution sheet – located under the link for this document.