Maths Workout - Algebra & Problem Solving

Topic 4 - Expanding Brackets				
Target 1	**Target 2**	**Target 3**	**Target 4**	**Target 5**
Expand brackets of the form 2(a+3), 3(2t-3): single variable	*Expand brackets of the form 4a(2b-2), a(3a+2): up to 2 variables*	*Expand brackets of the form -(y–4),-4a(3b+2): up to 2 variables*	*Expand brackets of the form 4a(b-c), -3b(a+b-c): up to 4 variables*	*Expand brackets and simplify an expression of the form 3(7x+2)+3x, -3a(7a+2)-3a(a+2)*
1. Demo: Expand brackets of the form 2(x+3)	1. Expand brackets of the form a(b+3)	1. Expand brackets of the form -2(x+3)	1. Expand brackets of the form -2a(3b+3), -c(4-2c)	1. Expand brackets and simplify an expression of the form -2(x+3)+3 and
2. Expand brackets of the form 2(x+3), 3(2+t)	2. Find the area of a rectangle with algebraic edge lengths	2. Expand brackets of the form -2(x-3)	2. Expand brackets of the form 5(a+c), -2a(b-c)	2. Expand brackets and simplify an expression of the form 3-2(x+3)
3. Find the area of a rectangle with algebraic edge lengths with assistance	3. Expand brackets of the form a(b – 3), c(1-d)	3. Expand brackets of the form -(x+3)	3. Expand brackets of the form -2(a+b-c)	3. Expand brackets and simplify an expression of the form -2(x+3)+3x
4. Find the area of a rectangle with algebraic edge lengths	4. Find the area of a rectangle with algebraic edge lengths	4. Expand brackets of the form -(x–2)	4. Expand brackets of the form -2a(a+b-c)	4. Expand brackets and simplify an expression of the form 3x-2(x+3)
5. Speed Response: Identify an expression and its expanded form.	5. Expand brackets of the form a(a+3), c(1-c)	5. Expand brackets of the form -2a(b+3), -c(c+4)	5. Expand brackets of the form $-2a(a^2+a-1)$	5. Expand brackets and simplify an expression of the form -2x(x+3)+3x
6. Expand brackets of the form 2(x–3), 3(4-r)	6. Expand brackets of the form a(2a+3), 3c(1-c)	6. Expand brackets of the form -2a(b-3), -c(5-c)	6. Expand brackets of the form -2(3a+2b-c+4)	6. Expand brackets and simplify an expression of the form 3x-2x(x+3)
7. Expand brackets of the form 2(2x+3)	7. Expand brackets of the form 3a(2a+3), 3c(1-4c)	7. Expand brackets of the form -2a(3b+3), -c(4-2c)	7. Expand brackets of the form $-2b(3a^2+2b-c+4)$	7. Expand brackets and simplify an expression of the form 3(x-3)+2(x-5): 1 variable
8. Expand brackets of the form 2(2x-3)	8. Mixed examples from tasks 1 to 7	8. Mixed examples of tasks 1 to 8		8. Expand brackets and simplify an expression of the form 3(x-y)-2(x+y): 2 variables
9. Mixed examples from tasks 1 to 10	9. Memory Game: Identify an expression and its expanded form	9. Mixed examples of tasks 1 to 8 including positive bracket multipliers		9. Expand brackets and simplify an expression of the form 3x(x-1)-2x(x-2): 1 variable
10. Speed Response: Identify an expression and its expanded form.	10. Memory Game: Identify an expression and its expanded form: expanded form in reverse order	10. Speed Response: Match an expression in brackets and its expanded form		10. Expand brackets and simplify an expression of the form 3x(x-y)-2x(y-x): 2 variables