

QUICK COVER

Expanding and Simplifying 2

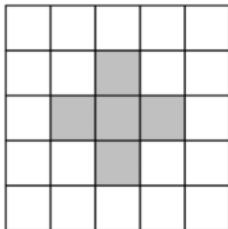
Task 1 : Expand a single bracket : $4(3x + 5)$ $5(2x - 1)$

Task 2 : Expand a single bracket and collect like terms : $4(2x - 1) + 3x - 2$

Task 3 : Expand a single bracket : $-4(2x + 1)$ $-3(4x + 5)$

Task 4 : Expand a single bracket and collect like terms : $10x + 4 - 4(2x - 1)$

Puzzle : Mixture **Tasks 2** to **4**



Help and hints.....

Expanding and Simplifying 2

TASK 1 Expand

Example

$$\begin{aligned} & 5(3x - 2) \\ &= 5 \times 3x + 5 \times -2 \\ &= 15x - 10 \end{aligned}$$

$+ 5 \times -2 = -10$

TASK 2 Expand and simplify

Example

$$\begin{aligned} & 3(2x - 1) + 2x - 3 \\ &= 6x - 3 + 2x - 3 \\ &= 8x - 6 \end{aligned}$$

Expand the bracket first

TASKS 3 Expand

Example

$$\begin{aligned} & -4(3x - 2) \\ &= -4 \times 3x + -4 \times -2 \\ &= -12x + 8 \end{aligned}$$

$-4 \times -2 = (+)8$

TASK 4 Expand and simplify

Example

$$\begin{aligned} & 12x + 4 - 3(2x + 1) \\ &= 12x + 4 - 6x - 3 \\ &= 6x + 1 \end{aligned}$$

$-3 \times +1 = -3$

$- \times - = +$
 $- \times + = -$
 $+ \times - = -$

You can use a grid to expand the brackets

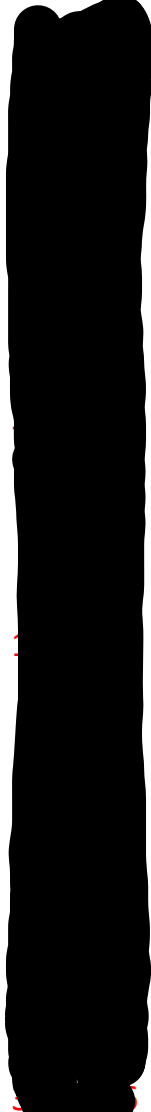
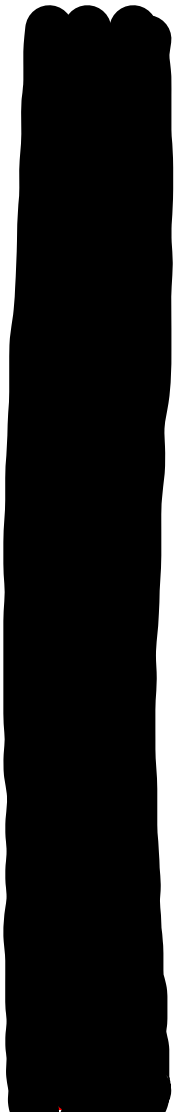
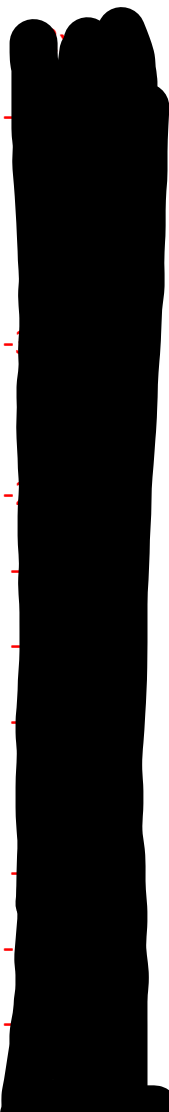
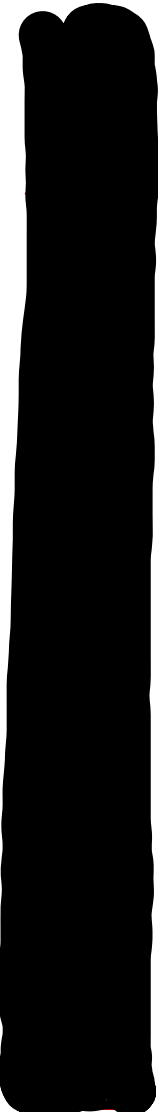
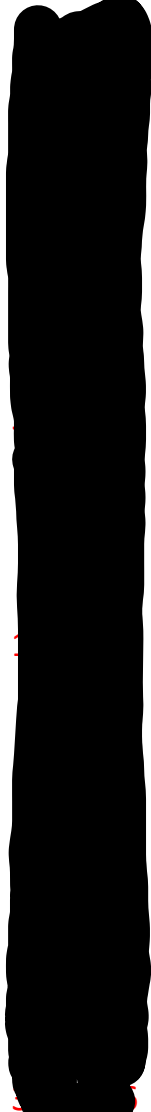
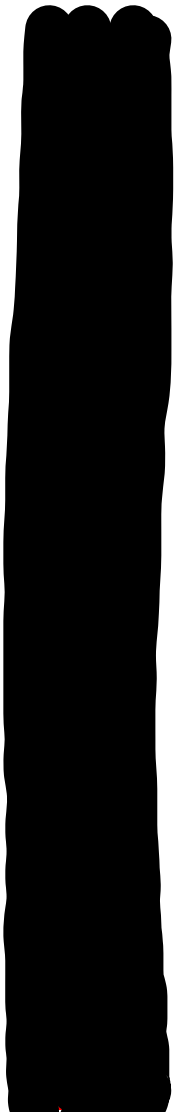
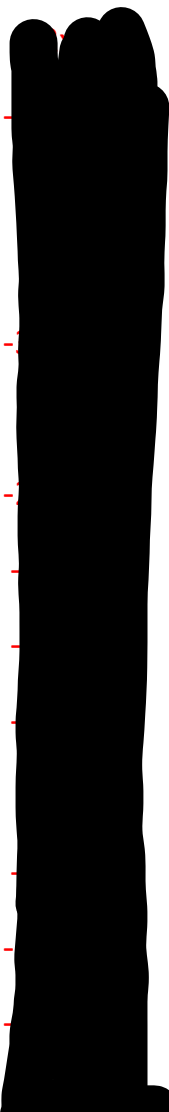
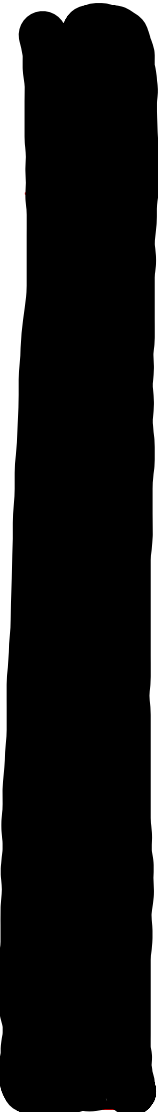
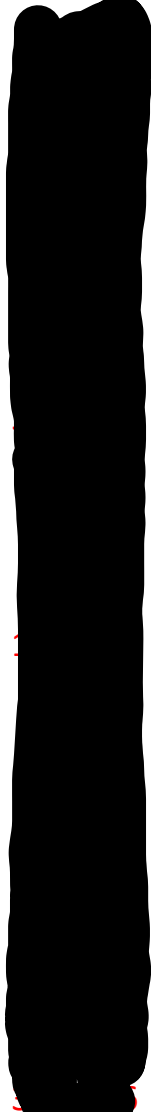
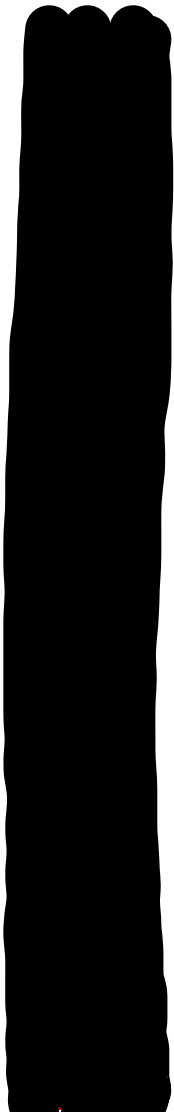
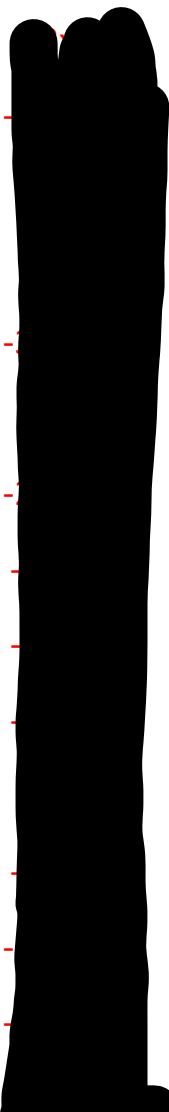
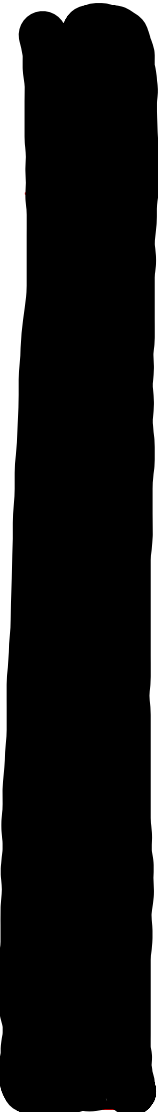
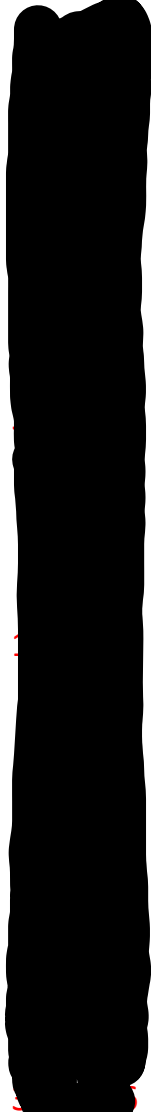
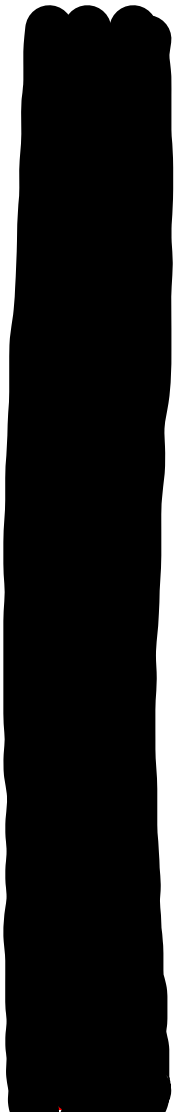
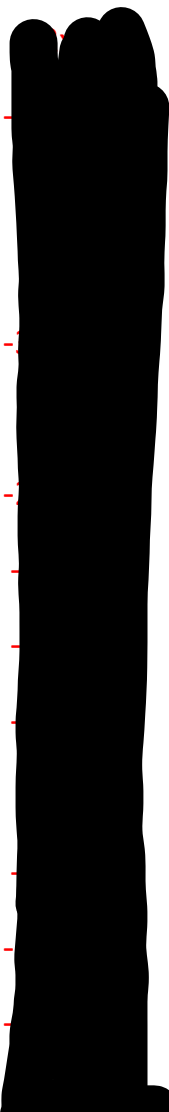
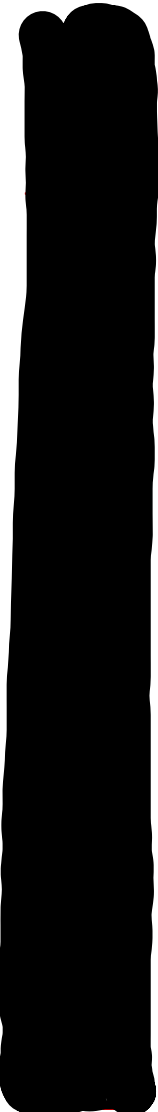
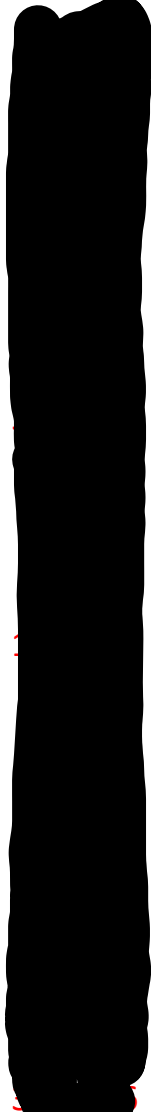
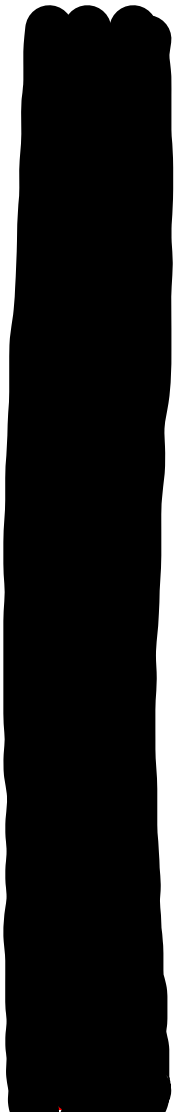
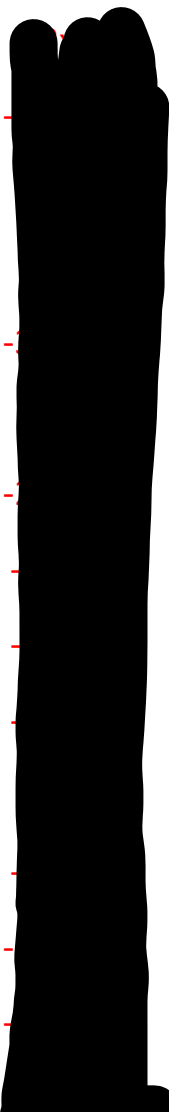
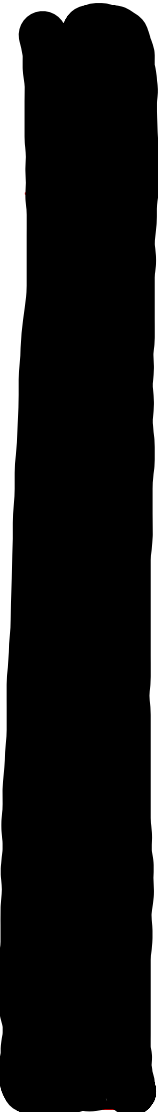
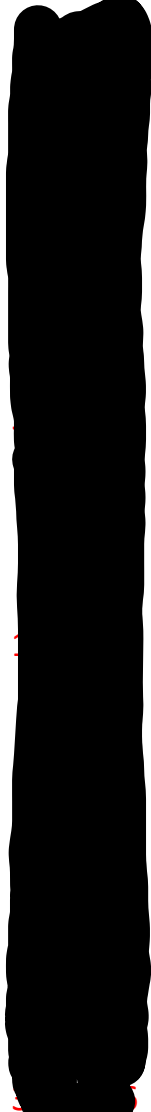
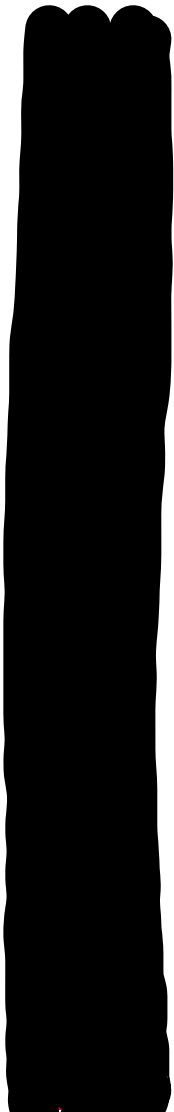
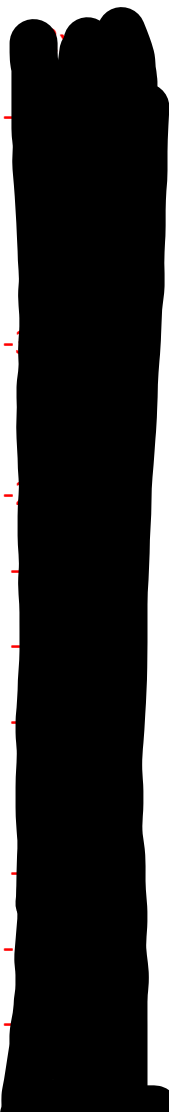
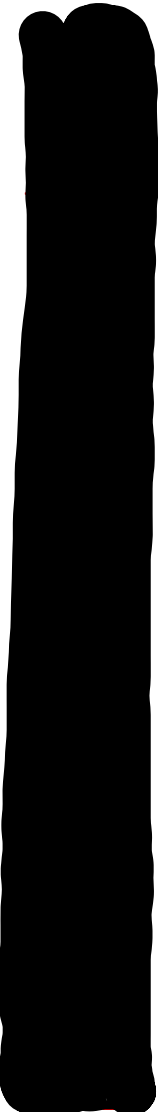
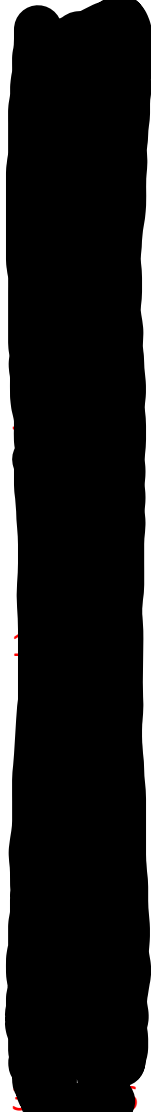
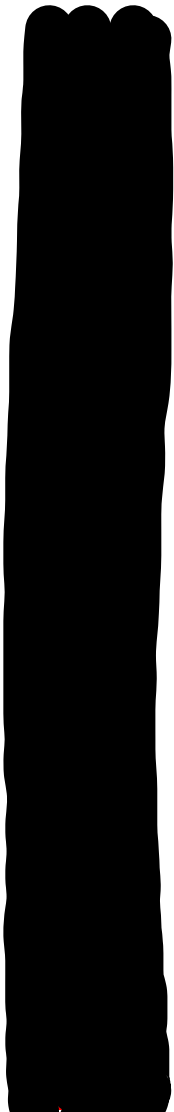
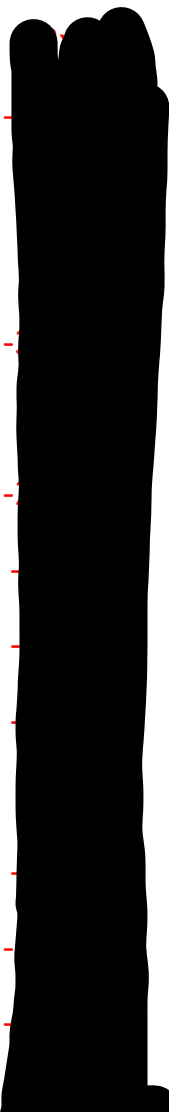
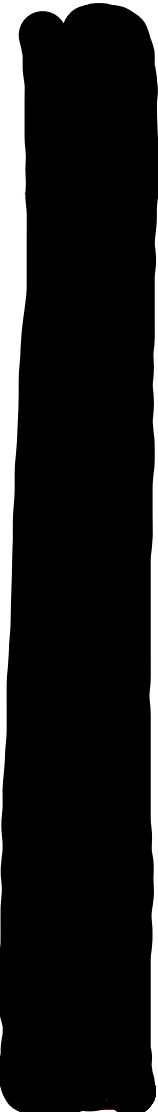
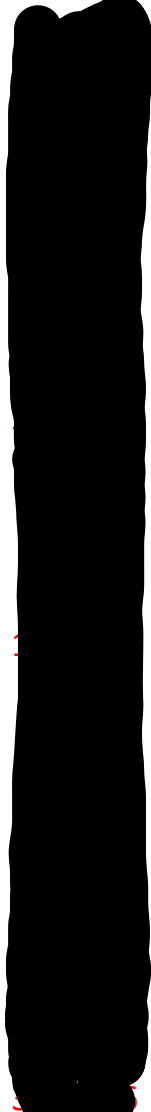
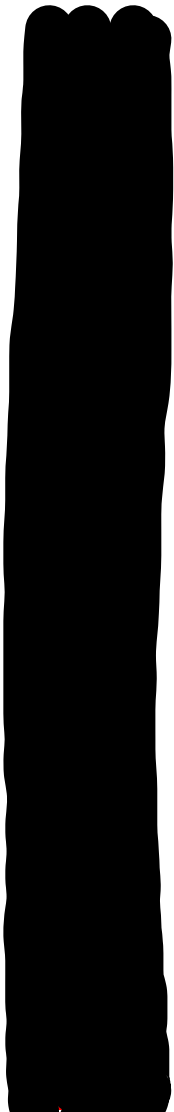
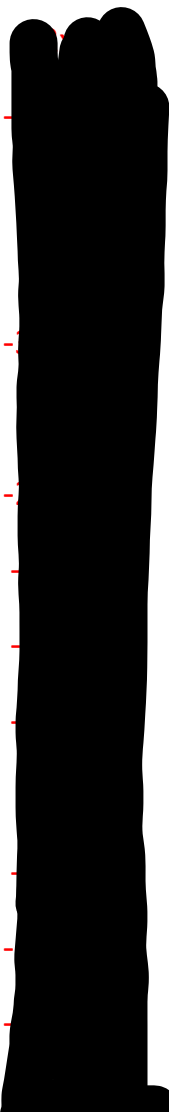
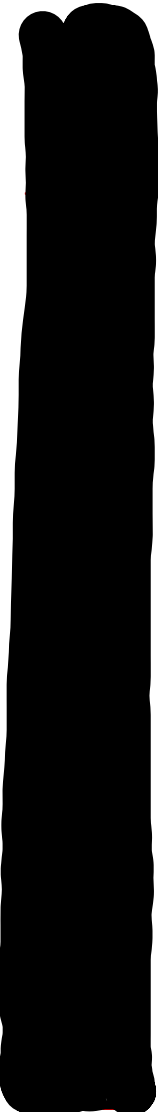
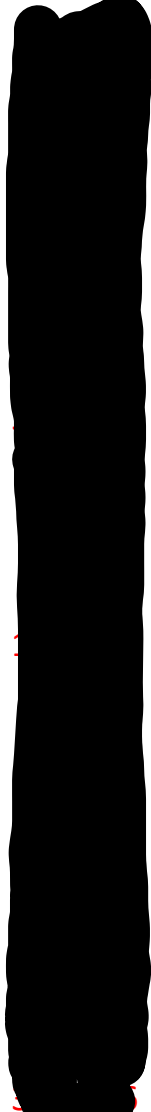
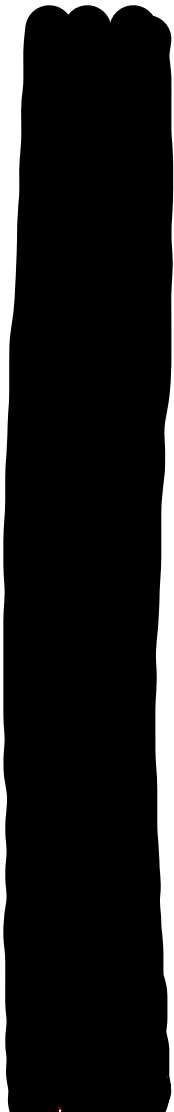
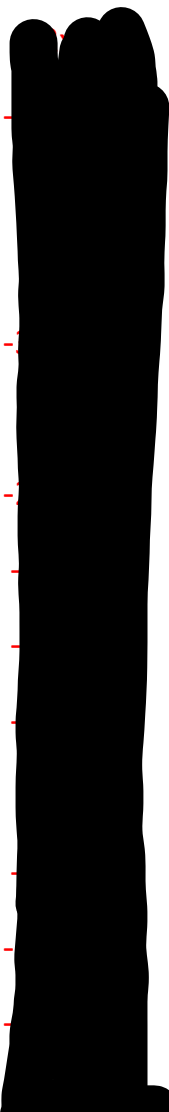
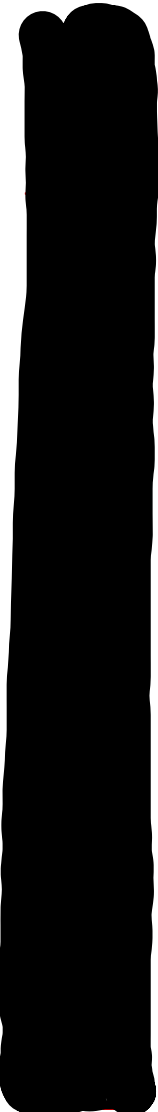
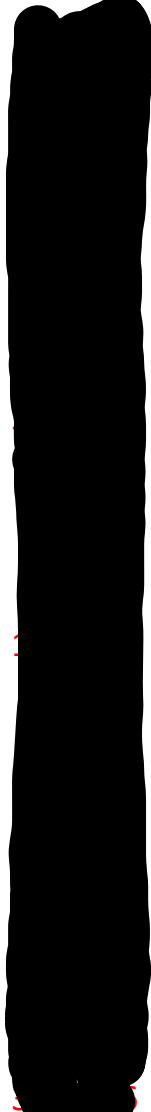
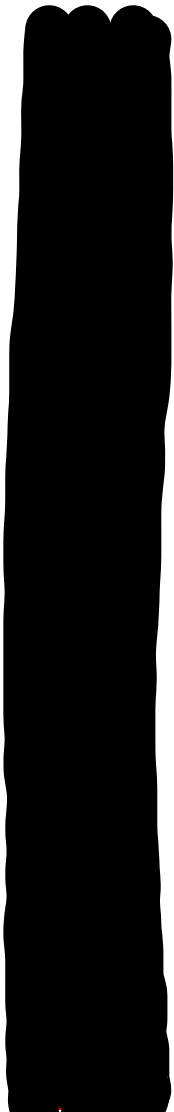
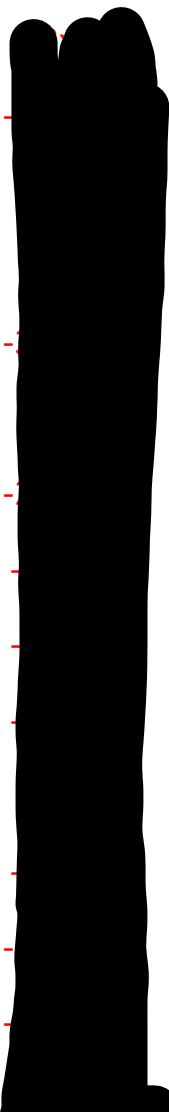
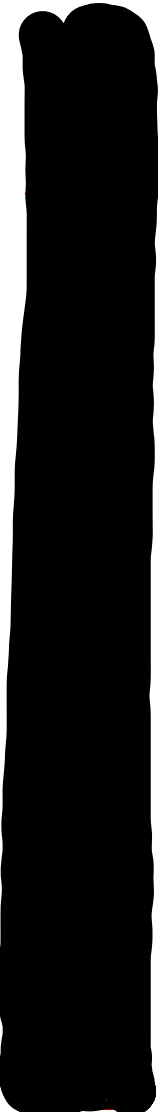
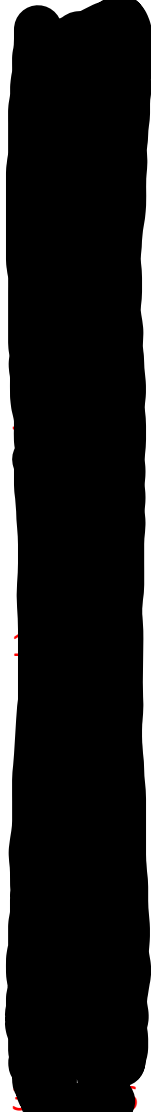
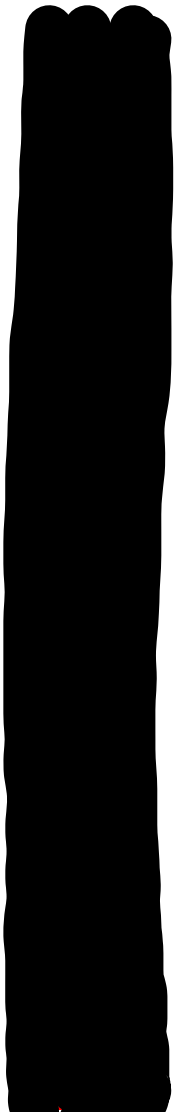
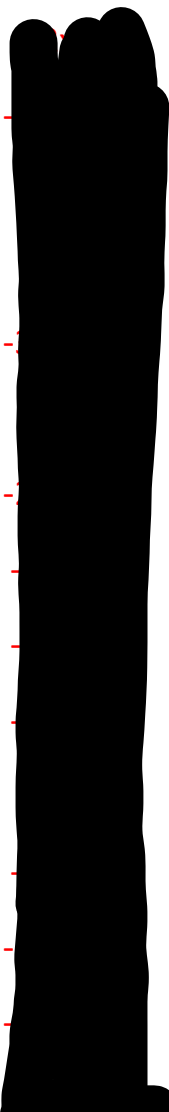
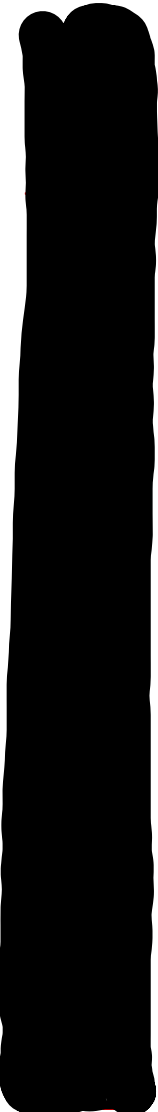
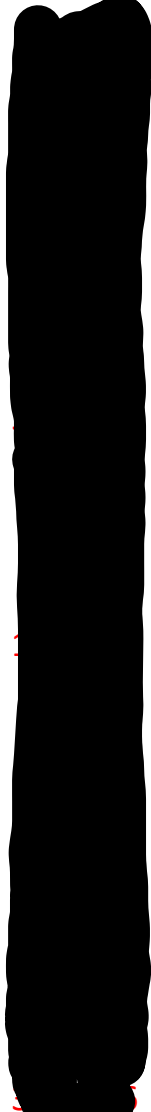
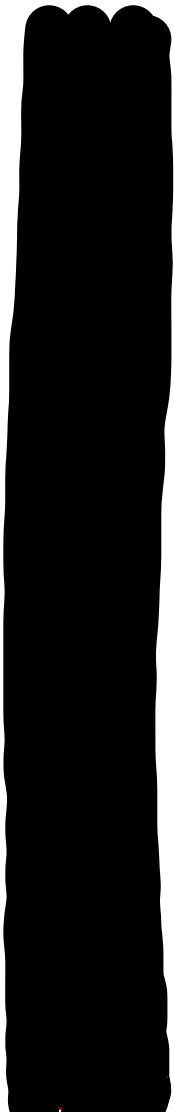
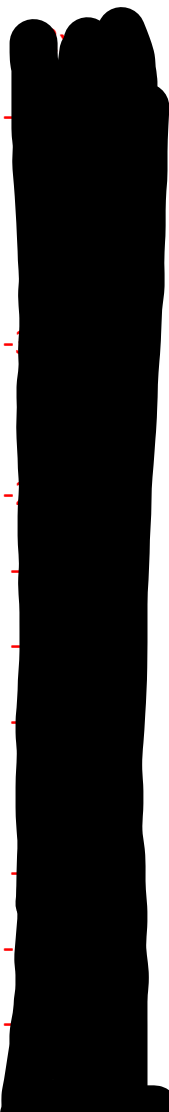
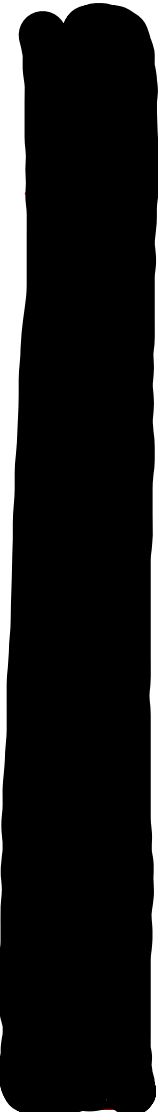
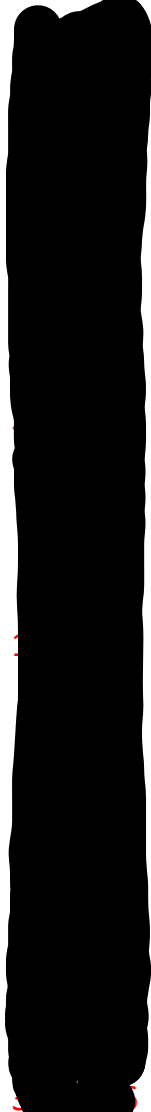
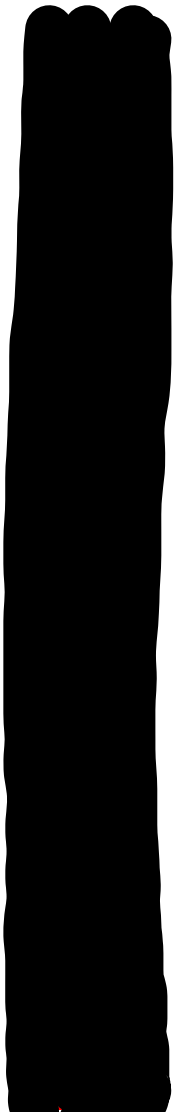
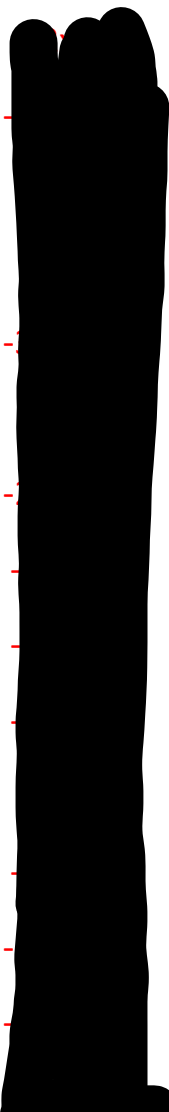
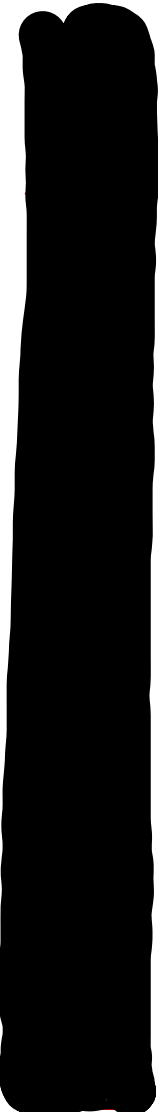
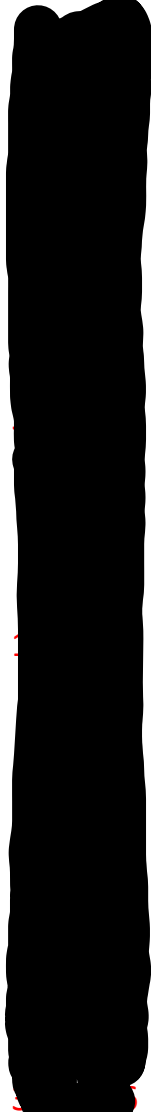
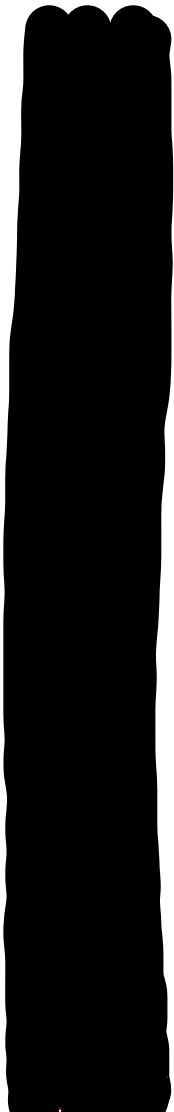
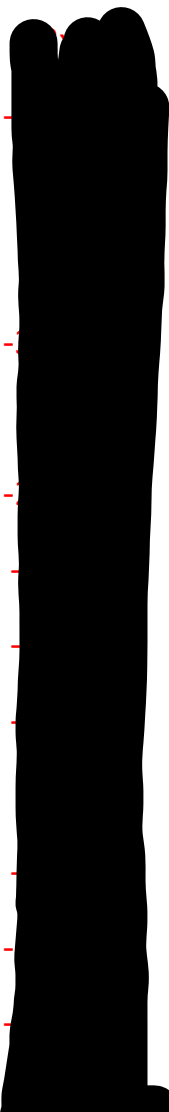
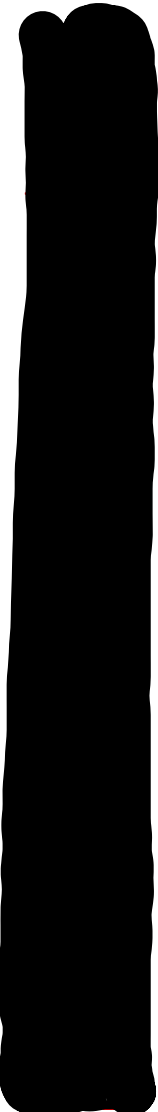
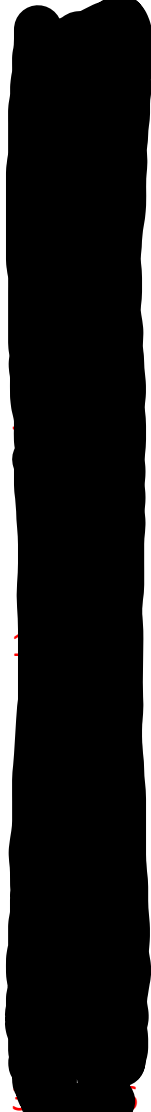
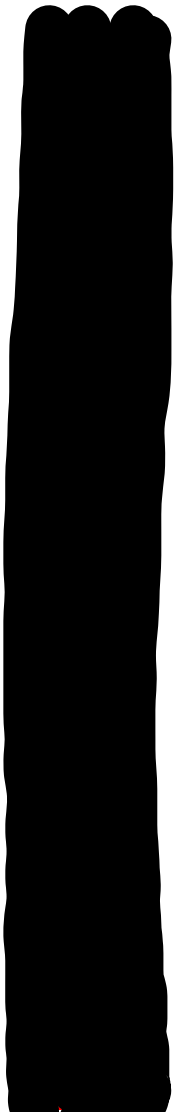
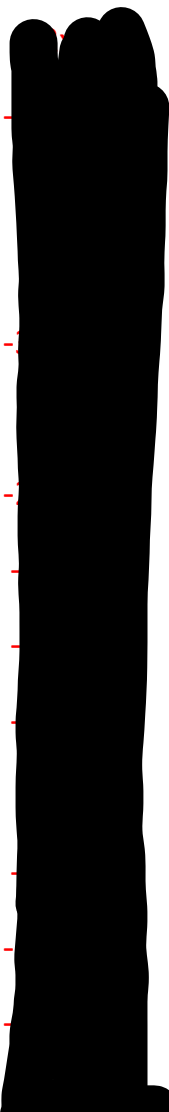
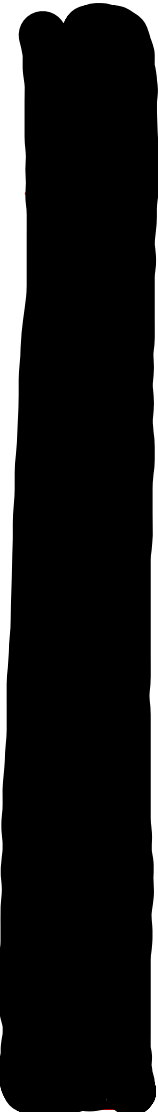
$$\begin{array}{r} -5(3x - 4) \\ \begin{array}{c|c|c} \times & 3x & -4 \\ \hline -5 & -15x & +20 \end{array} = -15x + 20 \end{array}$$

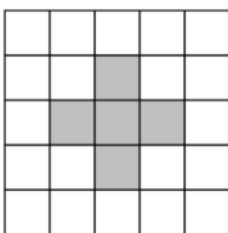
Expanding and Simplifying 2

TASK 1	TASK 2	TASK 3	TASK 4
1. $8(5x - 7)$	1. $4(6x - 5) + 3x - 3$	1. $-8(4x + 5)$	1. $9x + 5 - 3(3x - 2)$
2. $7(2x + 3)$	2. $6(5x - 11) + 6x - 2$	2. $-3(9x - 5)$	2. $8x + 2 - 5(4x + 1)$
3. $8(7x - 4)$	3. $7(8x - 7) + 6x - 2$	3. $-2(9x - 2)$	3. $11x + 2 - 3(4x - 5)$
4. $4(7x - 2)$	4. $4(7x - 11) + 6x + 1$	4. $-2(7x - 3)$	4. $16x + 2 - 5(4x + 7)$
5. $2(8x + 7)$	5. $3(2x - 11) + 3x - 4$	5. $-6(6x - 5)$	5. $12x + 4 - 2(4x + 1)$
6. $7(8x + 7)$	6. $6(7x + 3) + 2x - 5$	6. $-2(3x + 11)$	6. $12x + 5 - 5(3x - 4)$
7. $7(2x - 1)$	7. $4(7x - 2) + 4x - 1$	7. $-8(3x - 11)$	7. $16x + 2 - 4(3x - 5)$
8. $4(7x - 4)$	8. $7(6x - 11) + 2x + 6$	8. $-6(9x + 2)$	8. $12x + 3 - 5(2x + 7)$
9. $4(4x + 7)$	9. $6(4x + 11) + 3x + 1$	9. $-4(4x + 11)$	9. $14x + 2 - 4(2x - 3)$
10. $8(9x - 5)$	10. $7(9x + 10) + 4x - 4$	10. $-8(3x + 2)$	10. $18x + 5 - 5(3x - 5)$
11. $10(7x - 6)$	11. $6(5x + 4) + 5x + 6$	11. $-6(7x + 1)$	11. $9x + 3 - 5(4x + 1)$
12. $6(4x + 11)$	12. $3(9x + 10) + 6x + 5$	12. $-6(9x + 4)$	12. $11x + 3 - 2(4x - 5)$
13. $2(9x + 11)$	13. $3(8x + 1) + 2x - 4$	13. $-6(3x - 4)$	13. $14x + 2 - 5(4x - 1)$
14. $7(4x + 11)$	14. $4(6x - 5) + 2x - 4$	14. $-5(5x - 2)$	14. $14x + 2 - 5(3x - 5)$
15. $8(4x + 7)$	15. $3(2x - 1) + 4x + 1$	15. $-5(2x + 5)$	15. $19x + 2 - 4(4x - 5)$

Expanding and Simplifying 2

ANSWERS

TASK 1	TASK 2	TASK 3	TASK 4
1. 	1. 	1. 	1. 
2. 	2. 	2. 	2. 
3. 	3. 	3. 	3. 
4. 	4. 	4. 	4. 
5. 	5. 	5. 	5. 
6. 	6. 	6. 	6. 
7. 	7. 	7. 	7. 
8. 	8. 	8. 	8. 
9. 	9. 	9. 	9. 
10. 	10. 	10. 	10. 
11. 	11. 	11. 	11. 
12. 	12. 	12. 	12. 
13. 	13. 	13. 	13. 
14. 	14. 	14. 	14. 
15. 	15. 	15. 	15. 



$20x + 3 - 3(2x + 7)$	$3(5x - 1) + 4x + 4$	$(11 - x^4)2$	$-6x + 28$	$1 + x6$	$-10x - 12$
$1 - + x3$	$20x - 53$	$81 - x^4$	$2 + x5 + (11 - x3)5$	$2 + x5 + (11 - x3)5$	$4 + x6 + (11 - x2)4$
$-18x + 15$	$7(3x + 1) + 2x + 6$	$11x - 40$	$6x + 17$	$6x + 17$	$5x - 16$
$-5(3x + 4)$		$-5(3x + 7)$	$(5 - x3)5 - 3 + x6$	$6x - 23$	$(1 - x3)5 - 5 + x0$
		$2 - - x + (11 + x^4)2$	$7x + 4 - 5(4x + 1)$	$5 + x1$	$9 + x^4 + (5 - x8)9$
$(5 - x3)3 - 2 + x5$	$21 - x2$		$-8x + 22$	$5 + x1$	$6x + 5 - 2(3x - 1)$
$2(3x + 1) + 5x + 3$	$60x - 35$	$(5 - x9)3$	$-3(6x - 11)$	$-4(8x + 3)$	$-3x + 8$
$-2(5x + 6)$	$(7 + x2)4 - 5 + x^4$	$-15x - 35$	$23x + 7$	$7 + x3$	$(7 + x3)3 - 5 + x^4$
7					