

# QUICK COVER

# Simplifying 3

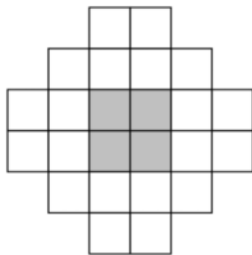
**Task 1** : Collecting like terms – 4 positive terms with 2 variables

**Task 2** : Collecting like terms – 3 positive terms and 1 negative term with 2 variables

**Task 3** : Collecting like terms – 4 terms with at most 2 negative terms with 2 variables

**Task 4** : Collecting like terms – 4 terms with 2 variables

**Puzzle** : Collecting like terms – 4 terms with 2 variables



# Help and hints.....

# Simplifying 3

## TASK 1

### Example

$$\begin{aligned} & 2a + 3b + 4a + 2b \\ & \boxed{2a} + \boxed{3b} + \boxed{4a} + \boxed{2b} = \\ & \boxed{2a + 4a} + \boxed{3b + 2b} = \\ & 6a + 5b \end{aligned}$$

You cannot 'mix' your  
a's and b's

## TASK 2

### Example

$$\begin{aligned} & \boxed{5a} + \boxed{6b} - \boxed{3a} + \boxed{4b} = \\ & \boxed{5a - 3a} + \boxed{6b + 4b} = \\ & 2a + 10b \end{aligned}$$

Make sure you  
check the in front  
of each term

## TASKS 3

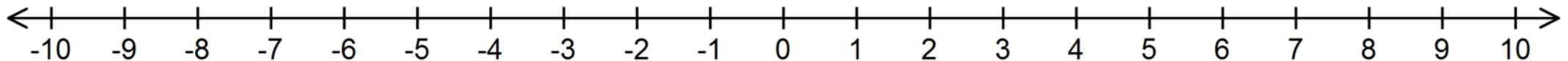
### Example

$$\begin{aligned} & \boxed{4a} + \boxed{6b} - \boxed{3a} - \boxed{4b} = \\ & \boxed{4a - 3a} + \boxed{6b - 4b} = \\ & a + 2b \end{aligned}$$

## TASK 4

### Example

$$\begin{aligned} & \boxed{-a} - \boxed{2b} - \boxed{6a} + \boxed{4b} = \\ & \boxed{-a - 6a} - \boxed{2b + 4b} = \\ & -7a + 2b \end{aligned}$$

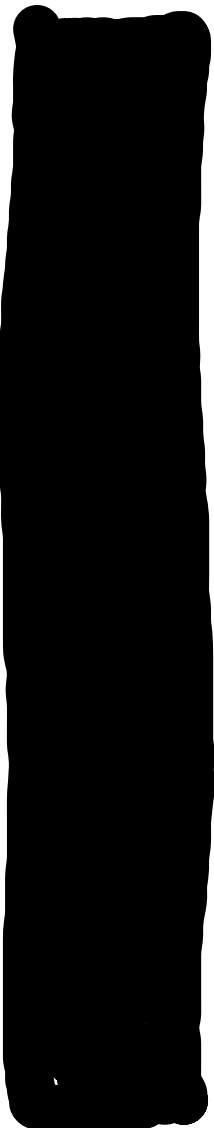
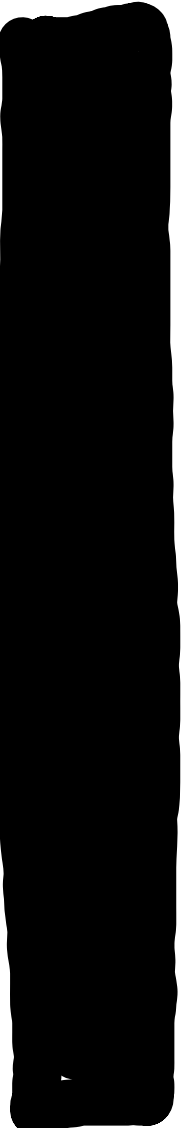

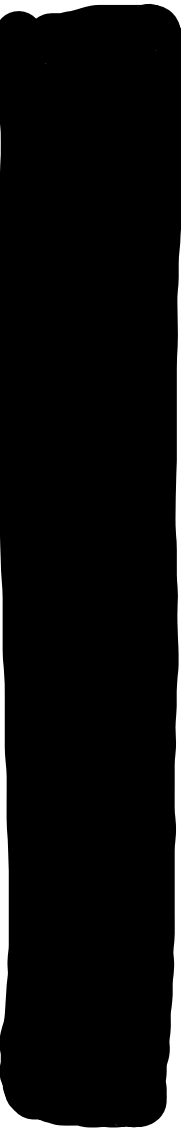
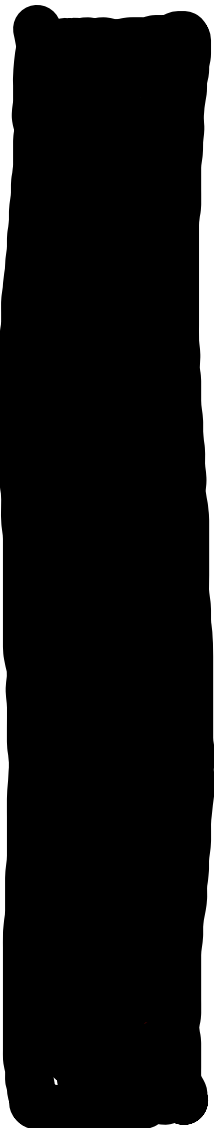
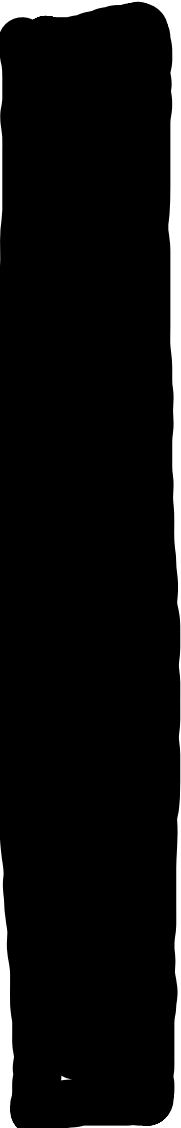

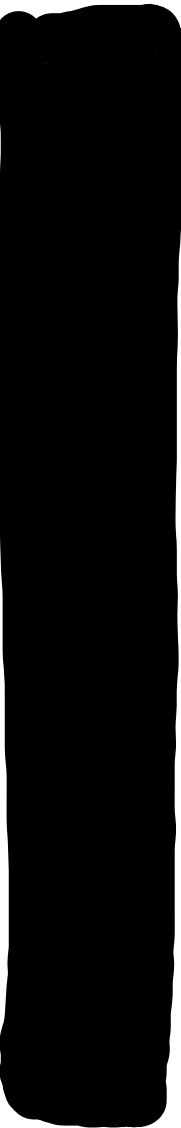
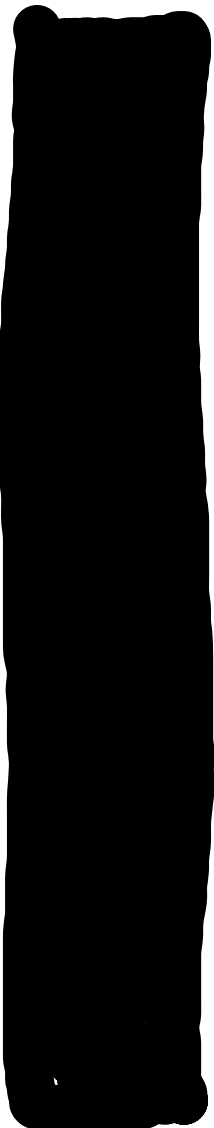
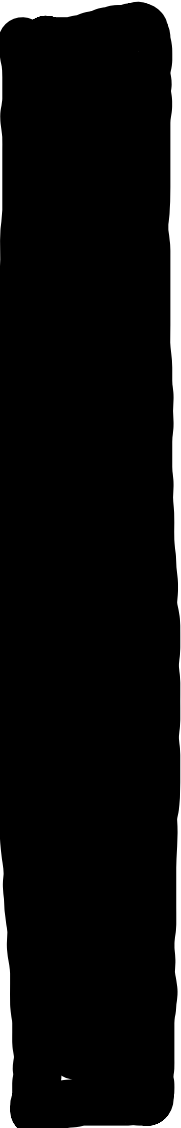

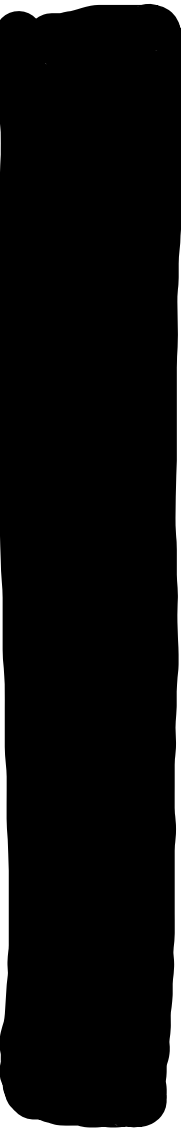
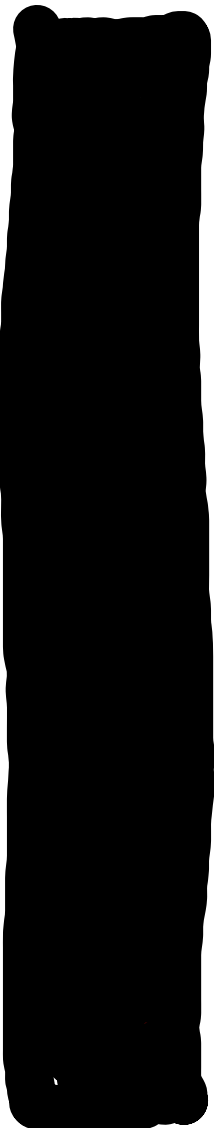
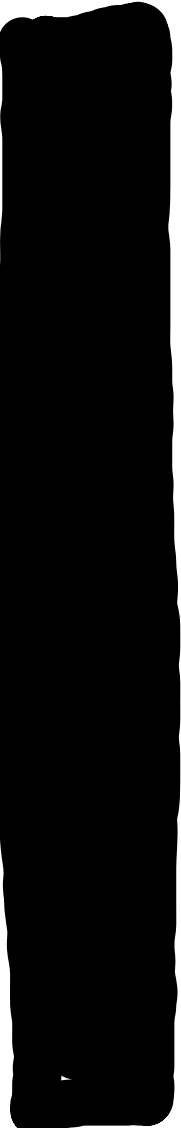

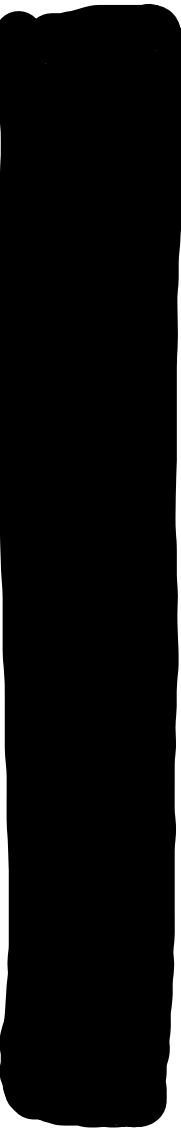
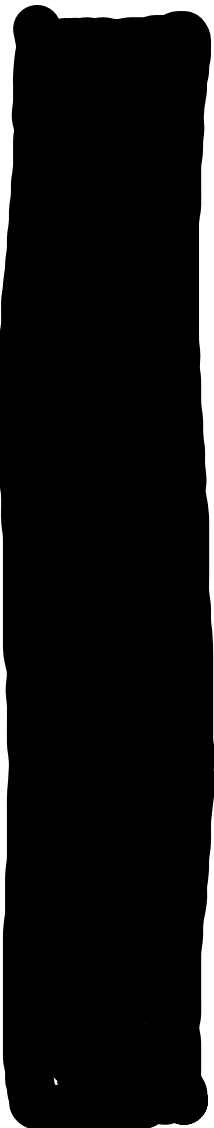
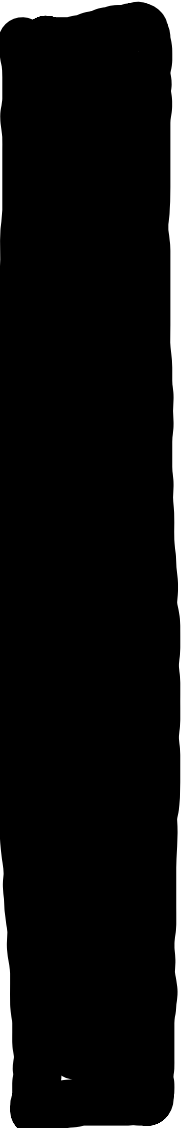

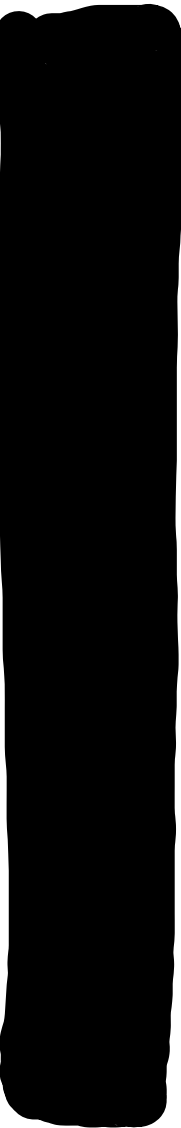
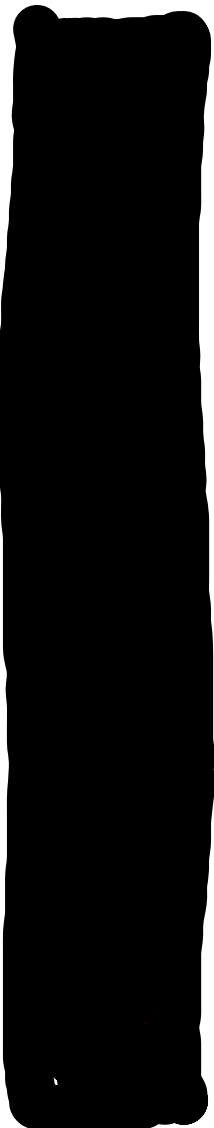
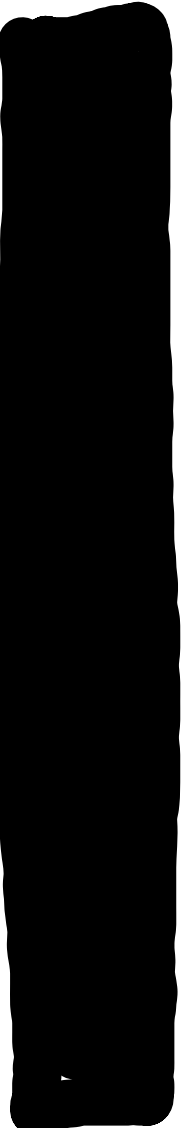

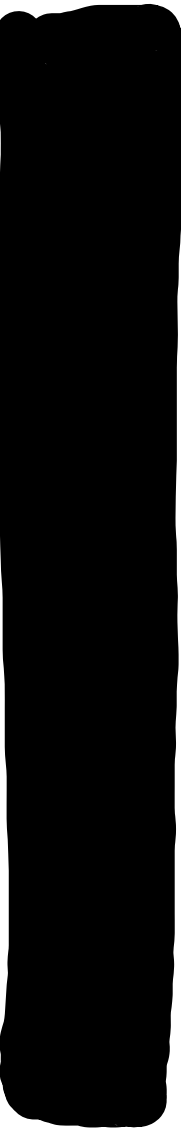
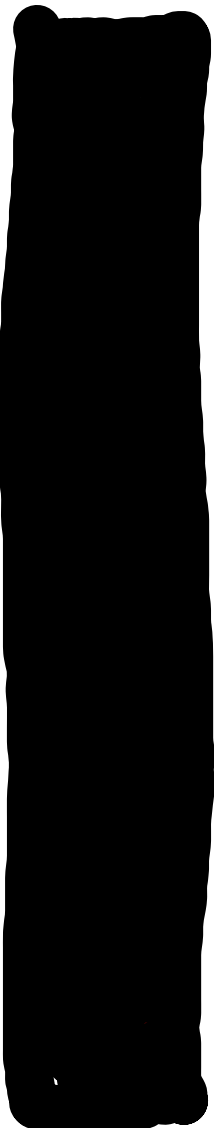
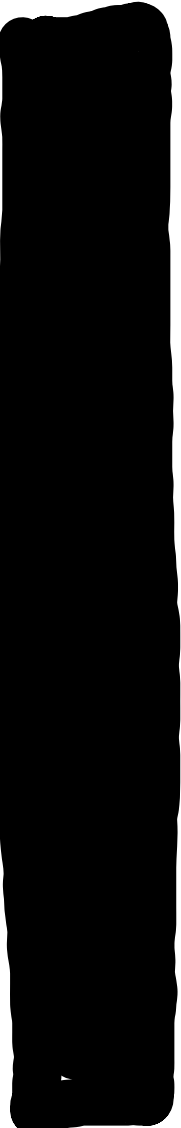

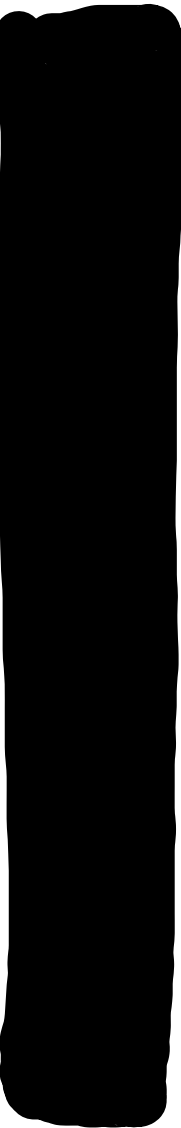
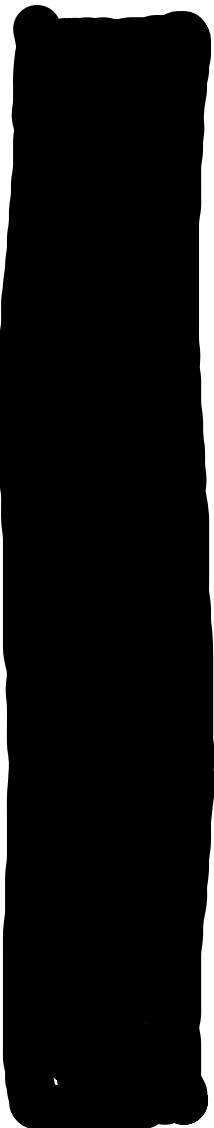
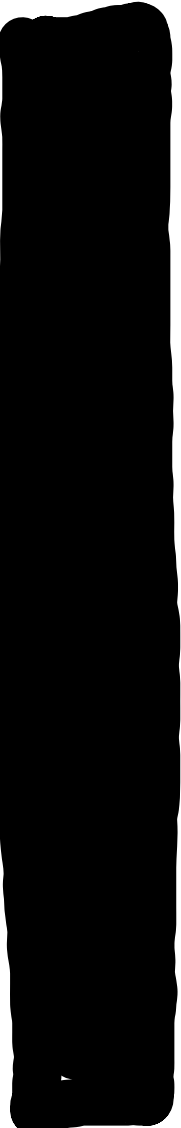

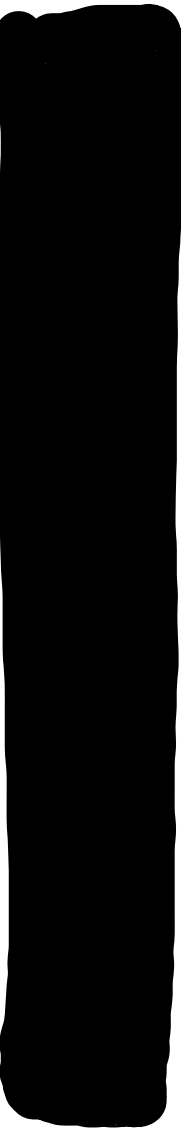
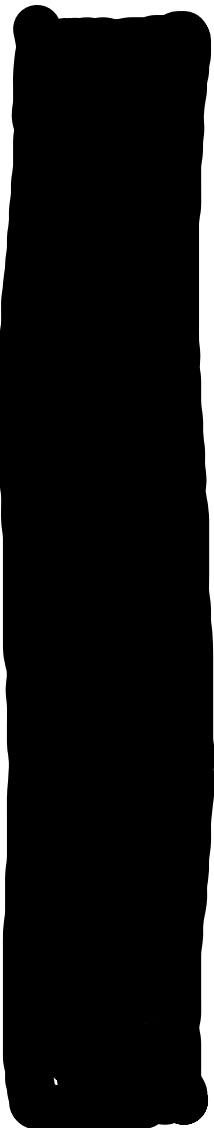
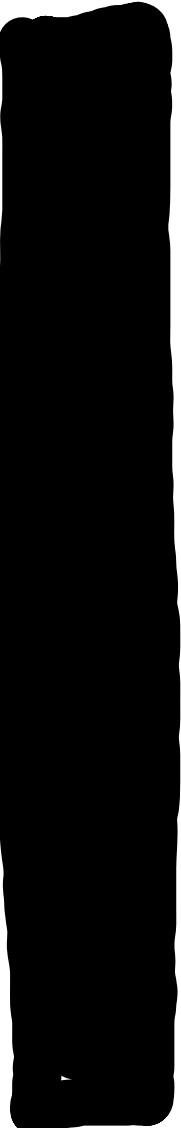

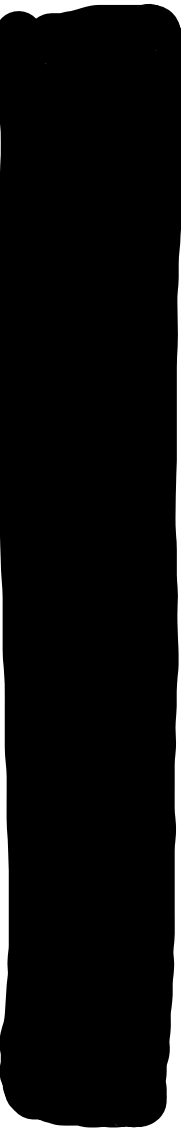
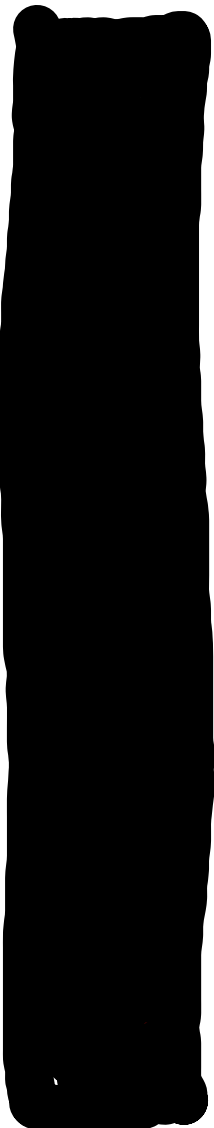
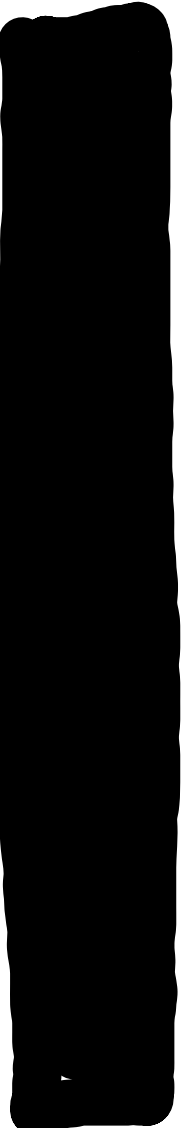

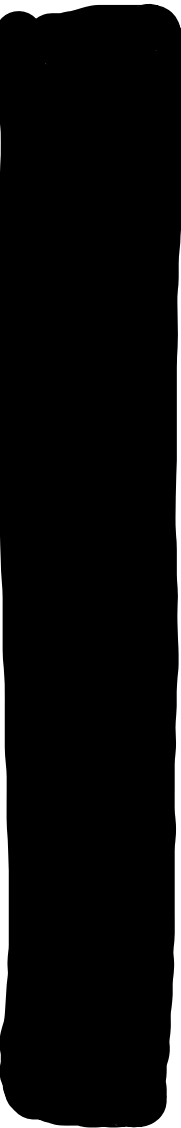
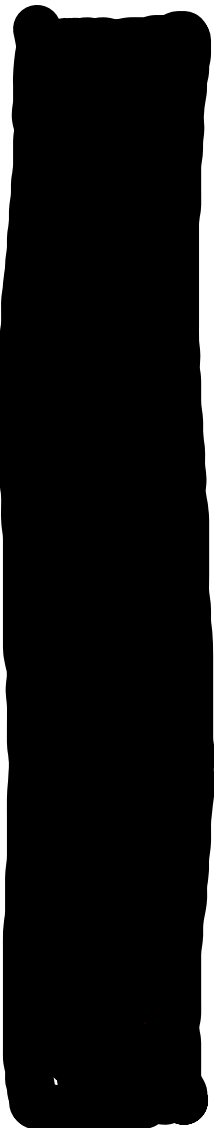
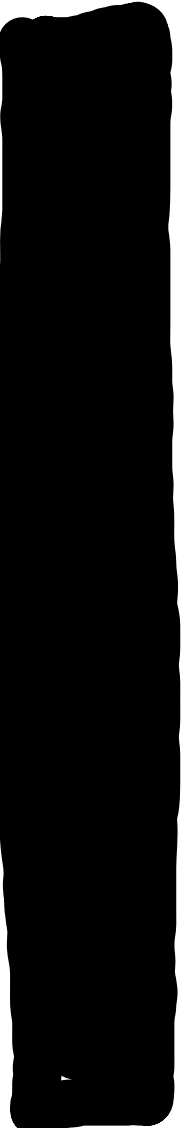

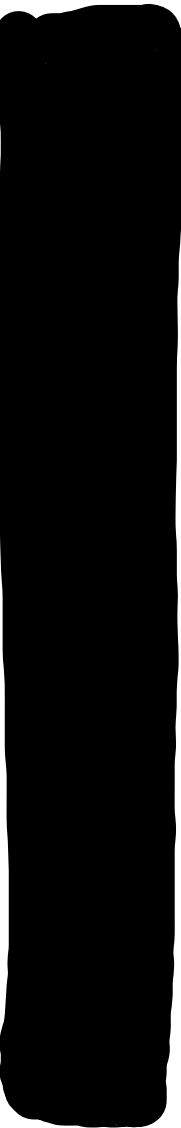
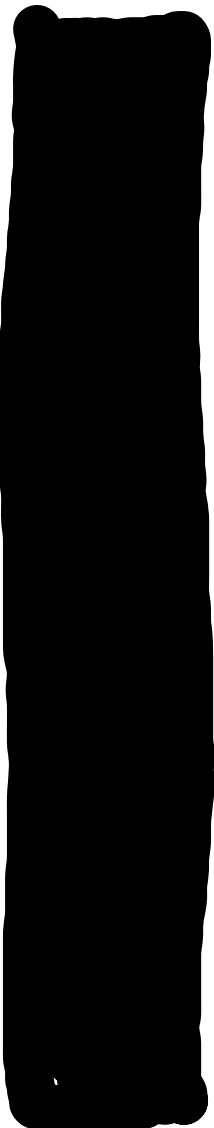
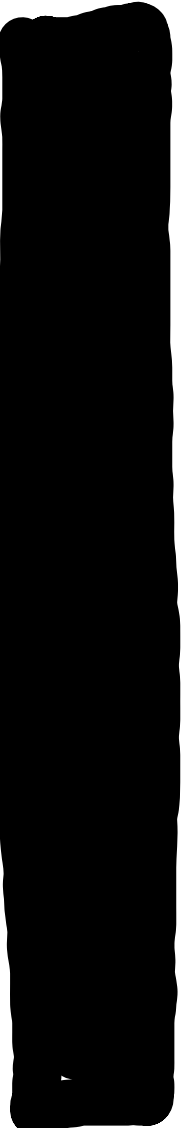

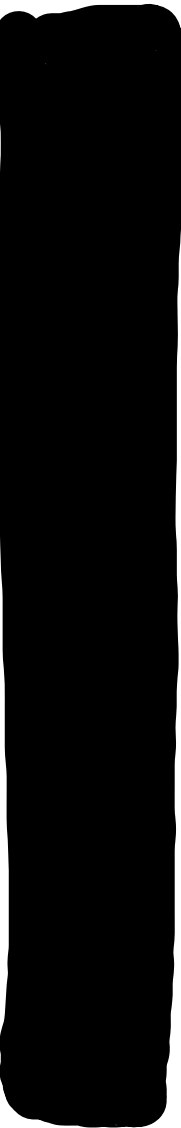
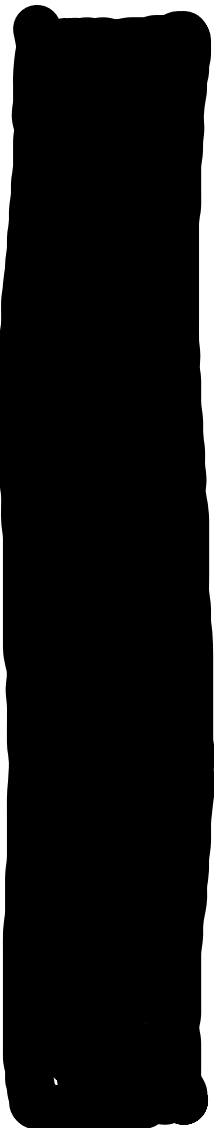
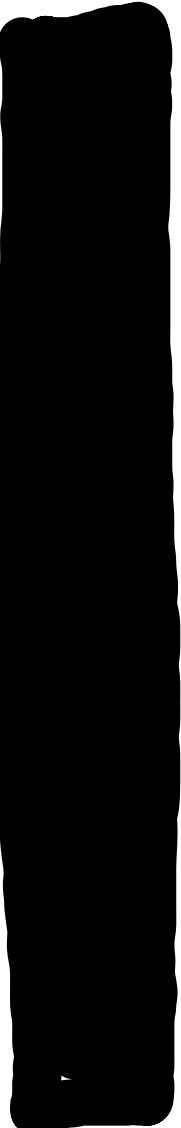

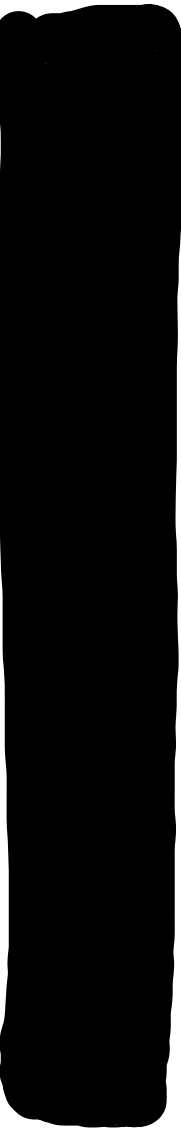
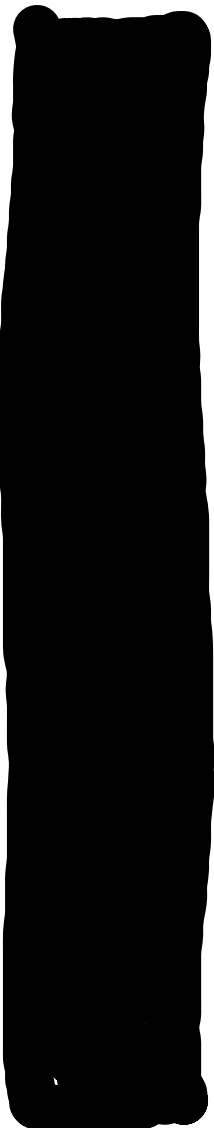
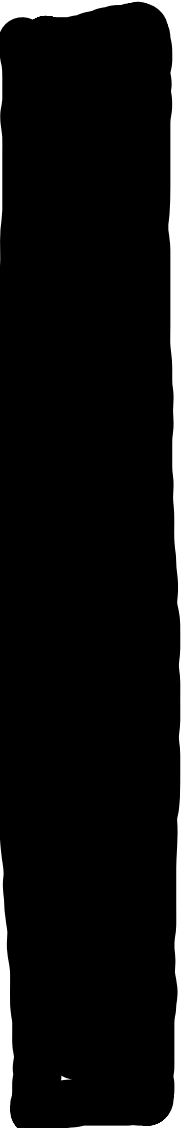

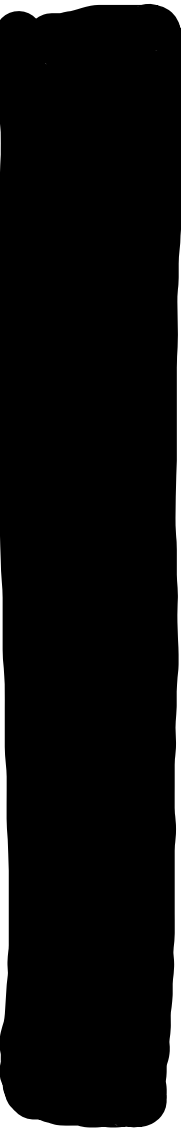
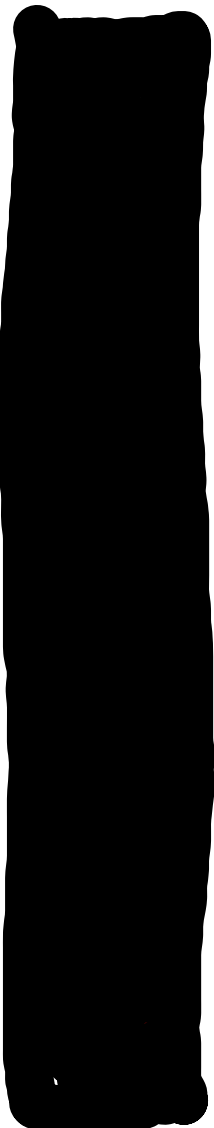
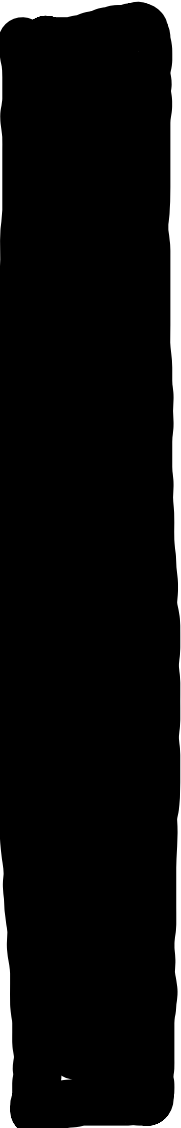

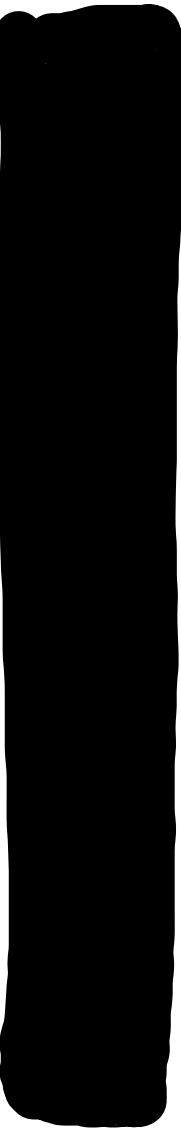


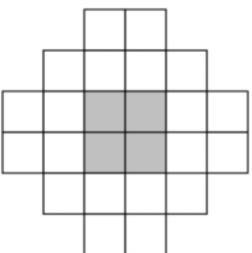
# Simplifying 3

<b>TASK 1</b>	<b>TASK 2</b>	<b>TASK 3</b>	<b>TASK 4</b>
<b>1.</b> $9a + 3b + 7a + 7b$	<b>1.</b> $7a + 10b - 2a - b$	<b>1.</b> $6a + 3b - 3a - 2b$	<b>1.</b> $-3a - 5b - 4a - b$
<b>2.</b> $6a + 4b + 7a + 7b$	<b>2.</b> $5a + 4b - 4a + 3b$	<b>2.</b> $8a + b - 3a + 2b$	<b>2.</b> $2a - 4b + 3a + 2b$
<b>3.</b> $7a + 5b + 7a + 3b$	<b>3.</b> $4a + 2b + 3a - b$	<b>3.</b> $5a - 3b - 5a + 4b$	<b>3.</b> $2a + 2b + 2a + 2b$
<b>4.</b> $10a + 5b + 5a + 4b$	<b>4.</b> $8a + 10b - 5a + 3b$	<b>4.</b> $7a + 5b - 4a - b$	<b>4.</b> $-3a - 2b - 2a + 2b$
<b>5.</b> $8a + 4b + 4a + 4b$	<b>5.</b> $8a + 5b + a - 5b$	<b>5.</b> $2a + 3b + 4a + 2b$	<b>5.</b> $-3a - 5b - a - 4b$
<b>6.</b> $5a + 5b + 7a + 4b$	<b>6.</b> $9a + 9b + 4a - 5b$	<b>6.</b> $9a + 2b - 5a + 4b$	<b>6.</b> $-4a - 5b - 5a - 3b$
<b>7.</b> $5a + 4b + 3a + 5b$	<b>7.</b> $7a + 3b - 2a + 4b$	<b>7.</b> $10a + b + 4a + 5b$	<b>7.</b> $-3a + 2b - 3a - 5b$
<b>8.</b> $10a + 5b + 4a + 7b$	<b>8.</b> $3a + 3b + 4a - 3b$	<b>8.</b> $9a + 5b - 5a - 3b$	<b>8.</b> $a - 3b - 3a - 2b$
<b>9.</b> $8a + 3b + 8a + 5b$	<b>9.</b> $4a + 2b + 4a - 5b$	<b>9.</b> $3a + b + 4a - 4b$	<b>9.</b> $a - b - a - 2b$
<b>10.</b> $5a + 4b + 6a + 8b$	<b>10.</b> $10a + 6b + a - 3b$	<b>10.</b> $10a + 4b - 4a + b$	<b>10.</b> $-4a - 2b + 2a + b$
<b>11.</b> $5a + 4b + 7a + 6b$	<b>11.</b> $2a + 3b - 4a + 5b$	<b>11.</b> $4a + 3b + 2a - b$	<b>11.</b> $-3a - 2b + 4a + 2b$
<b>12.</b> $9a + 4b + 8a + 3b$	<b>12.</b> $6a + 6b + 3a - b$	<b>12.</b> $10a - 5b + a - 4b$	<b>12.</b> $a - 2b + 4a + b$
<b>13.</b> $10a + 5b + 4a + 5b$	<b>13.</b> $6a + 5b + 3a - 3b$	<b>13.</b> $9a - 5b + 2a + 2b$	<b>13.</b> $2a + b - a - 3b$
<b>14.</b> $9a + 2b + 5a + 6b$	<b>14.</b> $4a + 2b - 3a + 4b$	<b>14.</b> $4a + 2b - a + b$	<b>14.</b> $2a + 2b + 5a - 2b$
<b>15.</b> $8a + 5b + 6a + 4b$	<b>15.</b> $7a + 6b + a - 2b$	<b>15.</b> $3a + b - a - 5b$	<b>15.</b> $-4a - 4b - 2a - 5b$

# Simplifying 3

## 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. 



$-a - 3b + 2a - 3b$ $3a + 2b + 5a - 3b$ $a + 4b$	$-5a + b - 2a + 2b$ $-5a + 4b - 5a -$	$-a + 2b - 4a + 2b$ $qc - 3b - 5a -$	$3a - 5b - 4a + 5b$ $a - 5b + 4a - 2b$	$-2a - 4b - 3a + 2b$ $qz -$
$-a - 2b + 2a + b$ $a - b$	$-2a - 2b - 3a + 5b$ $-8a + b$	$7a - b$ $3a - 2b + 2a + 4b$ $3a - 5b + 4a - 2b$	$qg - e$ $qg - e + 4a + 2b + 3a -$	$-2a - 4b - 3a + b$ $2a - 2b - 4a + 5b$ $qc + e5 -$
$-a + 4b$ $3a + b - a - 4b$ $-a - b$	$2a + b - 3a - 2b$ $-a$ $q - e3 - 2b - 3a - b - 5a +$	$5a + 2b$ $2a + 2b + 3a - 5b$ $3a - b + 5a + 2b - 3a -$	$a + 3b$ $-a + 2b + 2a + 2b$ $qg + e7 - 7a + 3b$	$2a + 3b + 4a - b$ $5a - 3b$
$a - b - a - b$ $-2a + 3b$	$6a + 2b$ $7a - 7b$	$2a + 2b - 3a + 2b$ $5a - 7b$	$2a + b$ $2a - 3b$	$q + 5a + 2b - e2$ $8a - b$