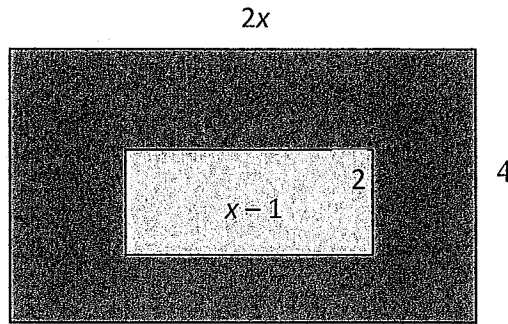


**STUDENT MATERIALS****TASK 1: A SHADY OPERATION**

The shaded region represents the deck around a pool (the inside rectangle).



A group of four friends agreed that the expression  $(2x)(4) - 2(x - 1)$  represents the area of just the deck.

Each of them simplified the expression. However, only one of them simplified it correctly. Look at each step in their thinking on this page. Describe the mistake made in each solution in the space provided. For the one that is correct, write "Correct"

<b>Abby's thinking:</b>  $(2x)(4) - 2(x - 1)$ $2x - 8(x - 1)$ $2x - 8x + 8$ $-6x + 8$	<b>Barry's thinking:</b>  $(2x)(4) - 2(x - 1)$ $8x - 2(-x)$ $8x + 2x$ $10x$
<b>Cloretta's thinking:</b>  $(2x)(4) - 2(x - 1)$ $8x - 2(x - 1)$ $8x - 2x - 2$ $6x - 2$  <i>correct</i>	<b>Davis's thinking:</b>  $(2x)(4) - 2(x - 1)$ $8x - 2(x - 1)$ $8x - 2x + 2$ $6x + 2$

**TASK 2: OPERATION X**


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Place an X in the box next to every expression that can be rewritten as  $4x + 6$ . Workspace has been left under each problem.

☐  $2x(2x + 3)$

☒  $(4x + 3)(x + 2)$

☐  $2(2x + 3)$

☐  $4(x + 1) + 5$

☐  $2(2x) + 3$

☒  $x + x + x + x + (2)(3)$

☐  $6x(x + 6) - 2x$

☒  $4(x + 3) - 6$

**REFLECTION**

Write your responses to each of the following reflection questions:

1. In Task 1, which type of mistake do you think is the most common for students to make?  
What advice would you give students to avoid making that mistake in their work?

I think that the mistake students make the most  
is mixing up the numbers and words and getting  
confused.

2. In Task 2, were there any expressions that you knew were not equivalent quickly without  
having to do a lot of computation? If so, what were some things you noticed about those  
expressions that helped you?

I notice that the numbers all add up  
to 6 if these numbers are shown: 2, 4, 3.

