

29
50

MAT

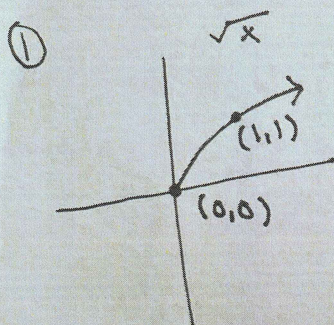
1340

WP #2

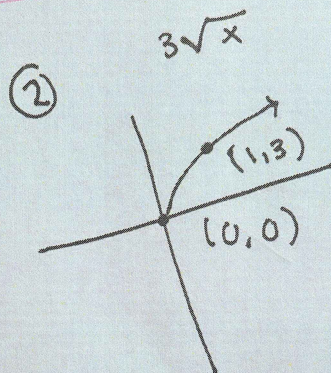
Lizbeth Lara

1. $g(x) = 5\sqrt{3x-21} - 2$
 $= 5\sqrt{3(x-7)} - 2$

$3x-21 = 3(x-7)$

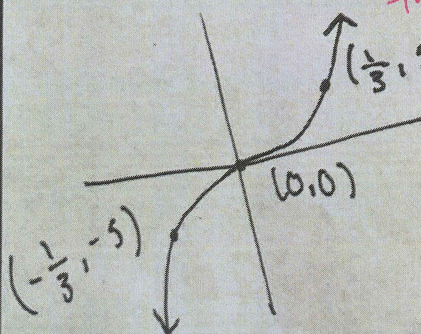


OK



OK

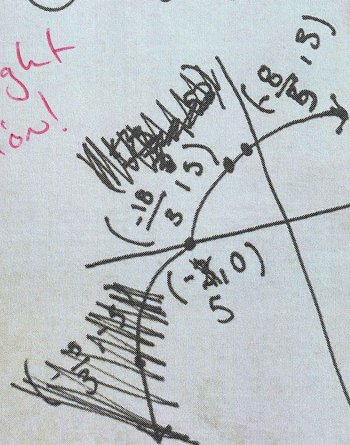
③ $5(3x)$



Uh-oh, that's not the right function!

④

$5\sqrt{3(x-3)}$



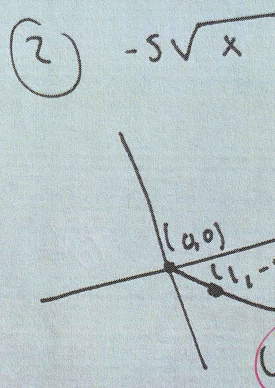
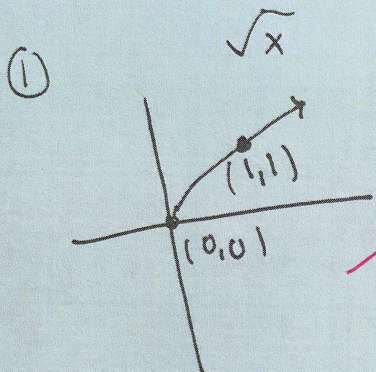
Better, but shifted the wrong way.

⑤ Forget the "-2" shift down at the end.

Pretty dark, please scan papers

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2. $g(x) = -5\sqrt{3x-21} + 2$



Can't evaluate

③

$-5\sqrt{3x}$

$(0,0)$

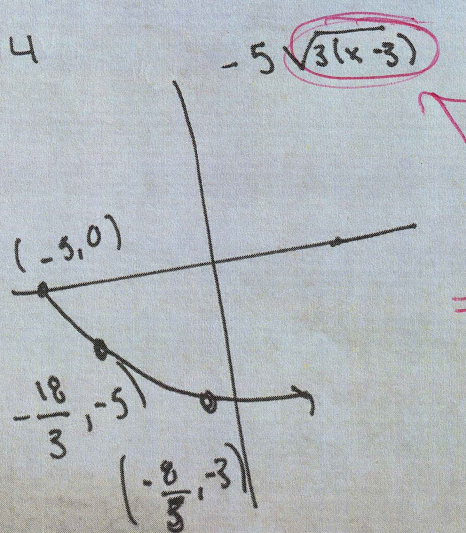
$(\frac{1}{3}, -5)$

$(2, -12)$

OK →

OK →

Didn't change - not OK



$(3x-21)$
 $= 3(x-7)$

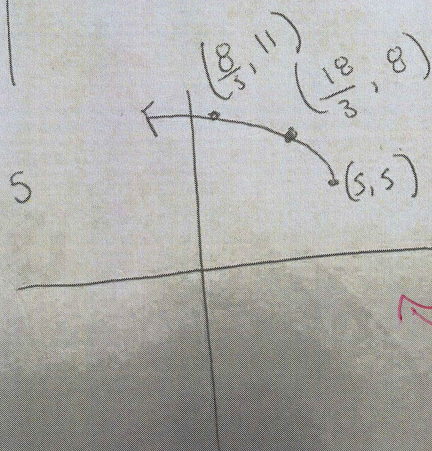
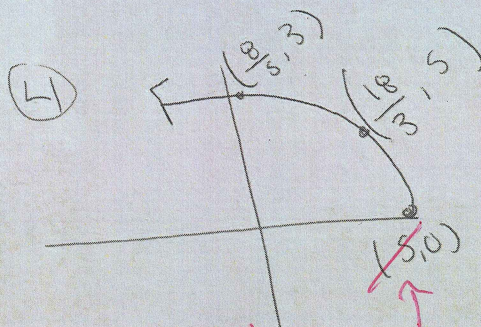
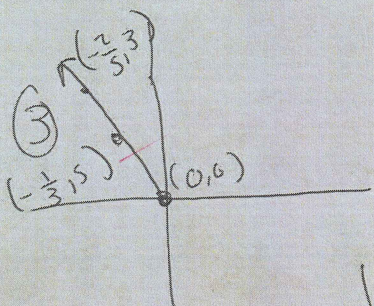
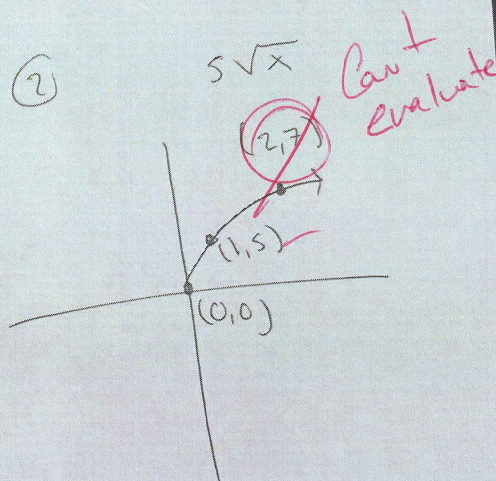
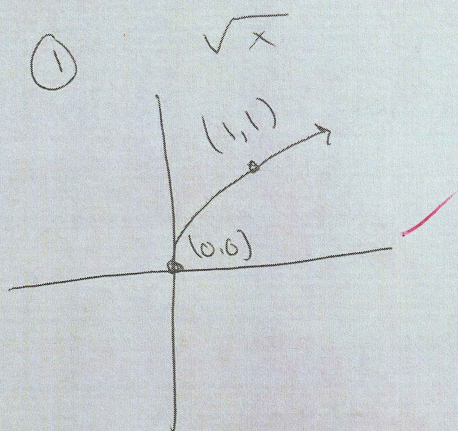
Missing step ⑤, the "+2" shift up.

+2.5

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$$3. \quad g(x) = 5\sqrt{-3x-21} - 11$$

$$= 5\sqrt{-3(x-3)} - 11$$



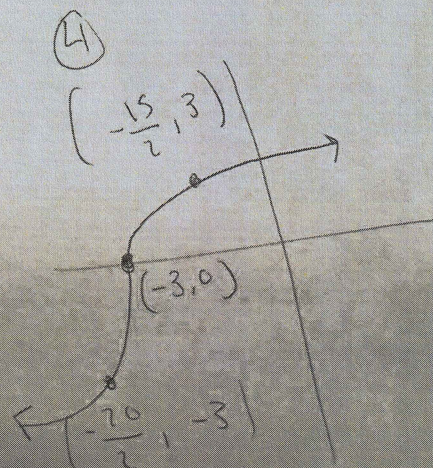
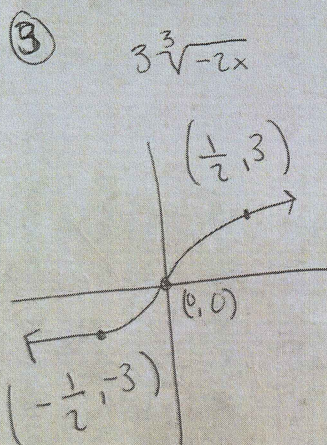
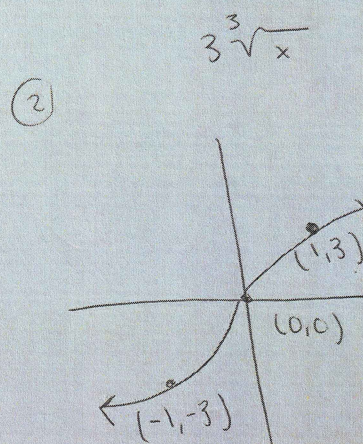
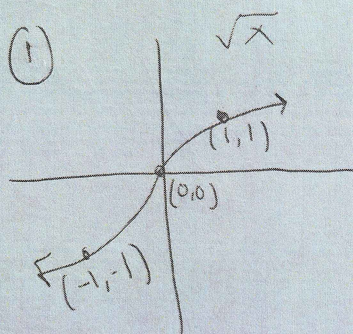
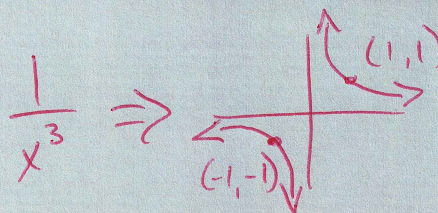
" $(x-3)$ " $\Rightarrow x=3$

"-11" $\rightarrow$ shift down.

+3.5

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4. $g(x) = \frac{3}{(-2x+8)^3} + 5$
 $= 3\sqrt[3]{-2(x+4)} + 5$

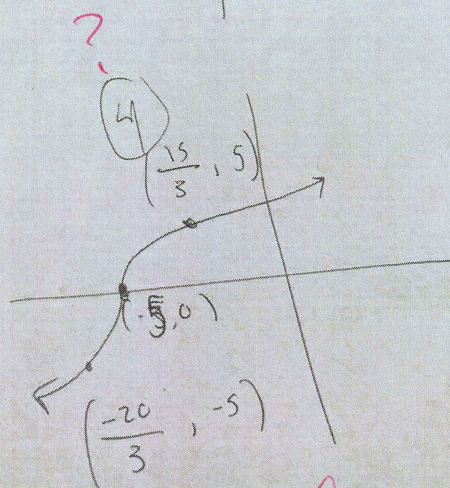
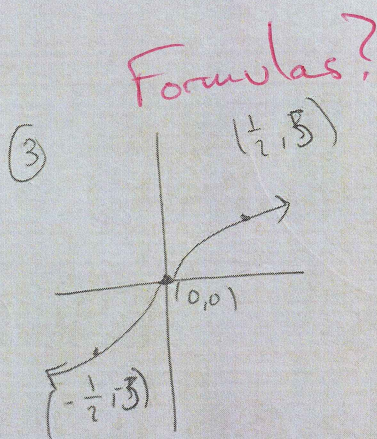
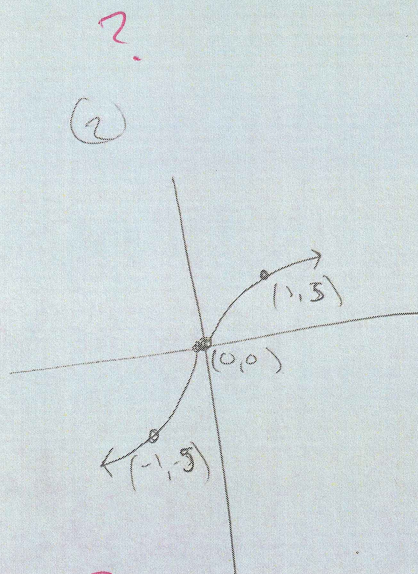
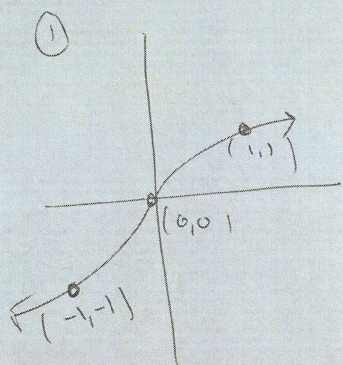


+1.5

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5. $g(x) = 5\sqrt{3x+21} - 6$



$x = \pm \frac{1}{2} \Rightarrow 2x$, but
it's $3x$.

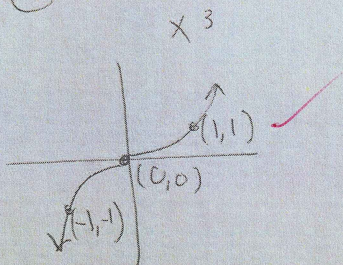
Need to see formulas
to explain your
moves.

+1.5

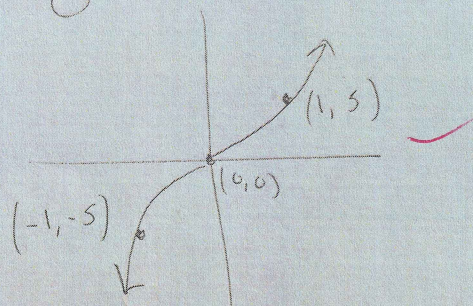
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6. $g(x) = 5(3x+21)^3 - 6$

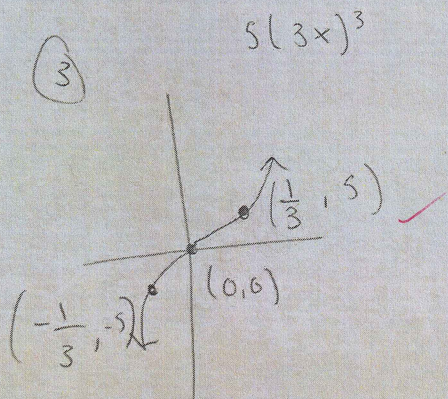
(1)



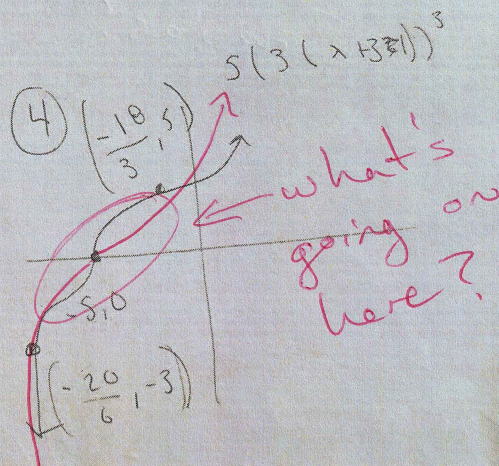
(2)



(3)



(4)



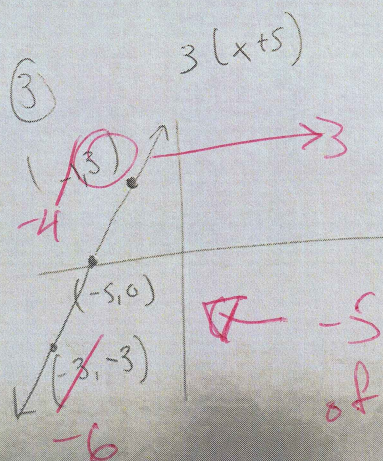
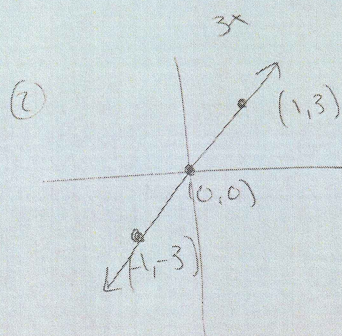
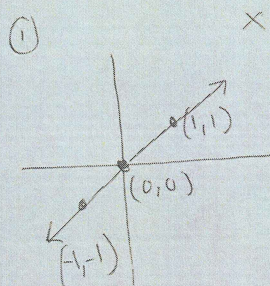
Missing step (5)

+3.5

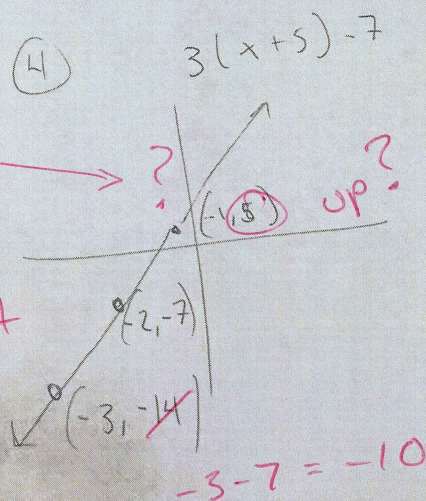
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7. $g(x) = 3(x+5) - 7$



~~-5~~ is left of -3!



+3.5

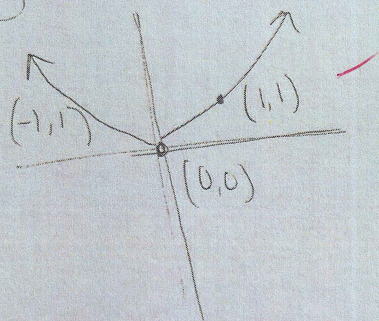
Q11AT

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8. $g(x) = 3(x+5)^2 - 7$

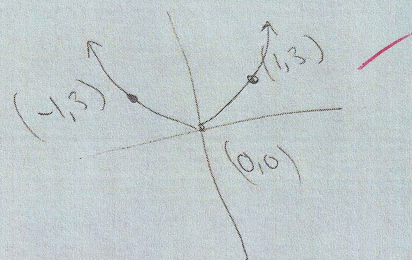
x^2

(1)



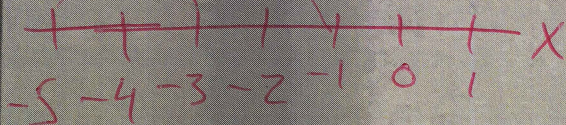
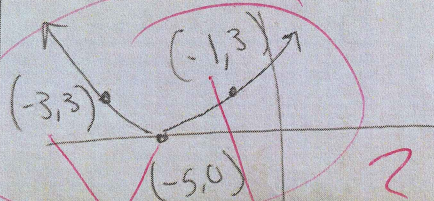
(2)

$3x^2$



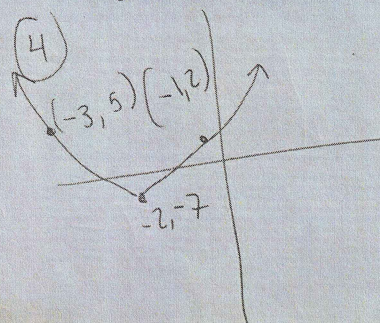
(3)

$3(x+5)^2$



$3(x+5)^2 - 7$

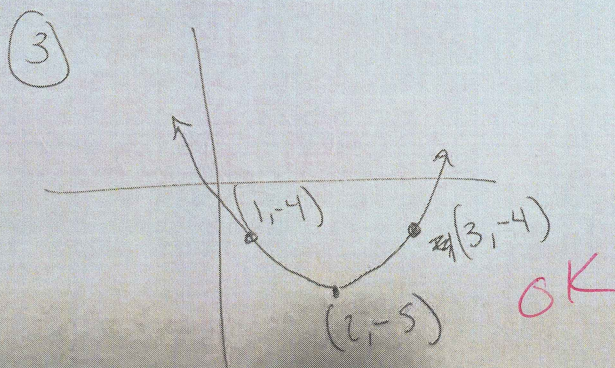
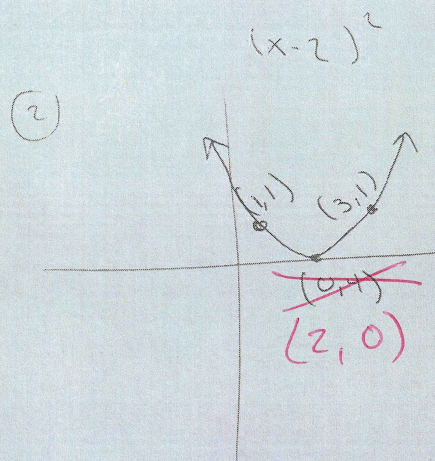
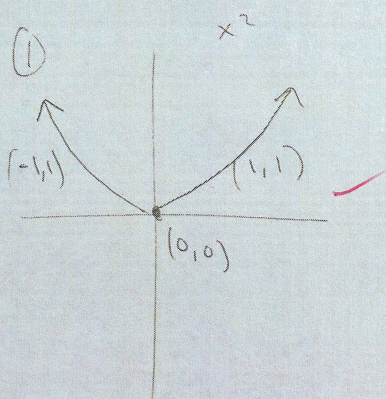
(4)



+2-5

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9. $g(x) = x^2 - 4x - 7$
 $= x^2 - 4x + 2^2 - 4 - 7$
 $= (x-2)^2 - 5$



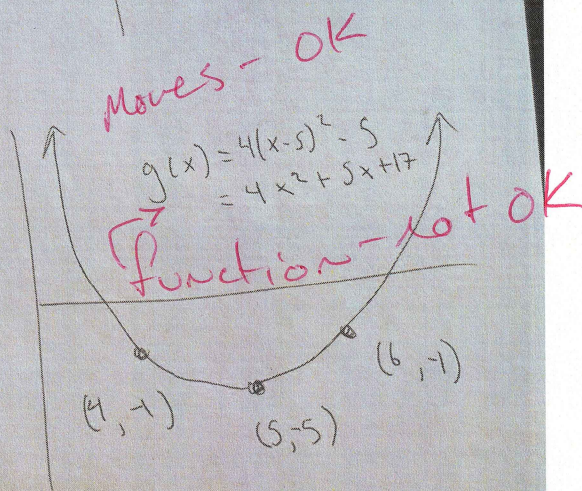
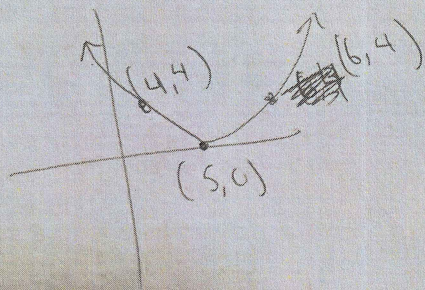
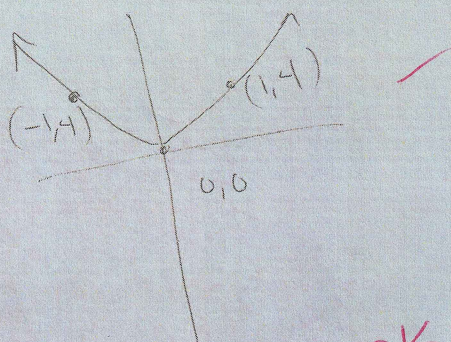
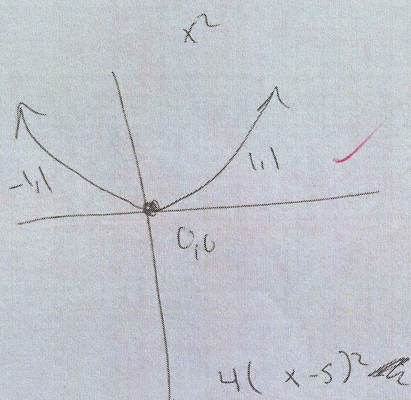
+4.5

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10.

$$\begin{aligned}
 g(x) &= 4x^2 + 5x + 17 \\
 &= 4(x^2 - 5x) + 17 \\
 &= 4(x^2 - 5x + \frac{25}{4}) - 4(\frac{25}{4}) + 17 \\
 &= 4(x-5)^2 - 25 + 17 \\
 &= 4(x-5)^2 - 8
 \end{aligned}$$



+3