

Using Align and Align*

This is the align environment.

$$\begin{aligned}(x-3)(x-5)+5 &= x^2-8x+15+5 & (1) \\ &= x^2-8x+20 & (2) \\ &= (x-4)^2+4 & (3) \\ &\geq 4. & (4)\end{aligned}$$

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$$\begin{aligned}(x-3)(x-5)+5 &= x^2-8x+15+5 \\ &= x^2-8x+20 \\ &= (x-4)^2+4 \\ &\geq 4.\end{aligned}$$

Both environments automatically place every entry into math mode, so you do not need to use dollar signs.

Using additional ampersands, here I've created a third column into which I've inserted comments. I used `\text` to make the comments appear as regular text within the math mode environment. I do not know why the text is right justified.

$$\begin{array}{lll}(x-3)(x-5)+5 = x^2-8x+15+5 & & \text{Expand} \\ = x^2-8x+20 & & \text{Combine constants} \\ = (x-4)^2+4 & & \text{I am completing the square} \\ \geq 4. & & \text{Because } (x-4)^2 \geq 0\end{array}$$