# Number Trick Task

Jessie discovers a cool number trick. She thinks of a number between 1 and 10, she adds 4 to the number, doubles the result, and then she writes this answer down. She goes back to the number she first thought of, she doubles it, she adds 8 to the result, and then she writes this answer down.

Here is an example:

| | |
|---|---|
| Jessie thinks of the number. | 5 |
| She adds 4 to her number | 5 + 4 = 9 |
| She doubles the result | 9 x 2 = 18 |
| She writes down her answer. | 18 |

| | |
|---|---|
| Jessie goes back to the number she thought of. | 5 |
| She doubles her number. | 5 x 2 = 10 |
| She adds 8 to the result. | 10 + 8 = 18 |
| She writes down her answer. | 18 |

Will Jessie's two answers always be equal to each other for any number between 1 and 10? Explain your reasoning.

Does your explanation show that the two answers will always be equal to each other for *any* number (not just numbers between 1 and 10)? Explain your answer.