

# Question

Correct Answer: 800

John buys twice as many red ties as blue ties. The red ties cost 50% more than blue ties. He spent \$200 on blue ties that cost \$40 each. How much did he spend on ties?

## Reasoning

500 tokens

Okay, so I need to figure out how much John spent on ties. Let's start by parsing the information given step by step.

First, John buys twice as many red ties as blue ties. Hmm, that means if he buys  $x$  blue ties, he buys  $2x$  red ties. That makes sense.

Next, the red ties cost 50% more than the blue ties. Alright, so if the blue tie is priced at, say,  $y$  dollars, then red ties would cost  $y$  plus 50% of  $y$ , which is  $1.5y$ . Alternatively, it can be written as  $1.5y$ .

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Now, let's figure out the cost per red tie. We know that the red ties cost 50% more than the blue ties. The blue tie costs \$40, so 50% of 40 is 20. Therefore, each red tie costs  $40 + 20 = \$60$ .

Total spent = Total cost of blue ties + Total cost of red ties

Total spent =  $200 + 600 = \$800$ .

So, John spent a total of \$800 on ties.



452 tokens

Wait, let me double-check my calculations to be sure I didn't make any mistakes.

First, blue ties:  $200 / 40$  is indeed 5 ties. Red ties are twice that, so 10 ties. Each blue tie is \$40, red tie is 50% more, which is \$60. 10 red ties at \$60 each:  $10 * 60$  is 600. Blue ties total \$200. So  $600 + 200$  is 800. Yeah, that checks out.

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Total expenditure:  $200 + 600 = 800$ . Yeah, definitely \$800.

I think that even if I messed up in the calculation, this straightforward approach seems correct. So, he spent \$800 on ties.