



NOETIC LEARNING

PROBLEM OF THE WEEK

April 13, 2026

THE PROBLEM:

Anna has 7 pairs of yellow socks, 8 pairs of red socks and 2 pairs of blue socks mixed together in a drawer. All pairs of socks are identical except for their colors. What is the smallest number of socks she has to take out blindly to make sure of having 2 matching pairs of socks?



(Source: [Noetic Learning Math Contest](#))

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THE SOLUTION:

If Anna picks 4 socks, in the worst case scenario, she could have 2 yellow, 1 red and 1 blue socks which gives her only 1 pair of matching socks.

If Anna picks 5 socks, in the worst case scenario, she could have 3 yellow, 1 red and 1 blue socks which gives her only 1 pair of matching socks.

If Anna picks 6 socks, in whatever scenario, she will have at least 2 matching pairs of socks.

So, the least number of socks Anna has to pick is 6.

THE ANSWER: 6 SOCKS