

Nola's scores on her first four tests were 92, 83, 79, and 94. What will she have to score on her next test to obtain an average of at least 88 for the term?

How many tests will Nola take?

Nola will eventually take FIVE tests.

What will we do about the missing test score?

That's what we're trying to find, so we will make it a variable.

$x \rightarrow$ Nola's 5th test score

How will we calculate the average of Nola's test scores?

Add up all her scores and divide by 5. It will look like this...

$$\frac{92 + 83 + 79 + 94 + x}{5}$$

Let's start to set up the inequality

$$\frac{92+83+79+94+x}{5} \quad \square \quad 88$$

What symbol ($>$, \geq , $<$, or \leq) should go in the box if Nola wants to score **at least** 88?

$$\frac{92 + 83 + 79 + 94 + x}{5} \geq 88$$

Let's solve for x !

$$\frac{348 + x}{5} \geq 88$$

$$5 \left(\frac{348 + x}{5} \right) \geq 5(88)$$

$$348 + x \geq 440$$

$$x \geq 92$$

Nola will need to score at least 92 on her 5th test