

NC EMPT'S
QUESTION?
of The week

What is the equation of the axis of symmetry of the graph of the equation $y = -x^2 + 6x + 4$?

- A. $x = \frac{1}{12}$ B. $x = -2$ C. $x = 3$ D. $x = -3$ E. $y = 3$

Last Week's Answer

A small math class has six students. The class average on a test must be greater than 80 for the class to receive a prize from the teacher. Five of the students scored the following: 66, 70, 80, 84, 95. What is the lowest grade the sixth student must score for the average to be greater than 80?

- A. 79 B. 80 C. 85 **D. 86** E. 100

Solution:

To find the average (arithmetic mean) of six scores, add the scores and then divide by 6.
Let x represent the missing sixth score.

$$\frac{66 + 70 + 80 + 84 + 95 + x}{6} > 80$$

$$\frac{395+x}{6} > 80 \quad \rightarrow \quad 395 + x > 480 \quad \rightarrow \quad x > 85$$

There are many test scores that would cause the average to be more than 80, but the lowest of the given possible answers is just larger than 85, and that is 86.

Each week, we'll reveal the answer to the previous week's question!

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