



Problem of the Week

Problem B

Fun and Games

Mariana's trivia team is playing a game against other teams. The game includes 10 questions, and each team is given 5 points to start. Teams then earn 4 points for each correct answer, and lose 3 points for each incorrect answer.

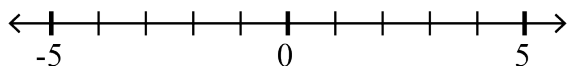


- (a) The table shows the score card for Mariana's team.

(The trivia questions were tough!)

In the right column, fill in their *running score*, which is their current score after each question.

Note that their running score may be positive or negative, like a temperature reading. You may find the following number line helpful.



Question	Result	Running Score
—	—	5
1	X	
2	X	
3	X	
4	✓	
5	X	
6	✓	
7	X	
8	✓	
9	X	
10	✓	

- (b) The winning team had a score of 10. How many questions did they get correct?

EXTENSION: What is the maximum possible score? What is the minimum possible score? Are all the integers in between these values possible scores? Explain.