

# Who, where and when? (Trial & Improvement)

## Who?

One of the following 4 people is a murderer. All of them have worked out the answers to the following questions to 1 decimal place:

Q1.  $x^2 + 3x = 5$  (has an answer between 1 and 2)

Q2.  $x^3 + 3x = 85$  (has an answer between 4 and 5)

Q3.  $x^3 - 5x = 59$  (has an answer between 4 and 5)

Q4.  $x^2 + 2x + 3 = 17$  (has an answer between 2 and 3)

The murderer has made 3 errors. The victim has made 0 errors. The other suspects have made 1 error.



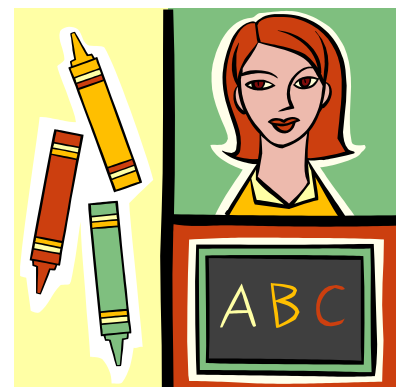
The **head teacher** says that  
Q1 = 1.2, Q2 = 4.2, Q3 = 4.4 and Q4 = 2.9



The **maths teacher** says Q1 = 1.2, Q2 = 4.1, Q3 = 4.4 and Q4 = 2.8



The **caretaker** says Q1 = 1.2, Q2 = 4.2, Q3 = 4.3 and Q4 = 2.8



The **English teacher** says Q1 = 1.2, Q2 = 4.2, Q3 = 4.3 and Q4 = 2.9

## Where?

The murder was committed at one of the locations below, but which one?  
It happened where ALL the answers are true.

Q1.  $x^2 + 4x = 10$

Q2.  $x^2 - 2x = 5$

Q3.  $x^2 + x = 53$

Q4.  $x^3 - \sqrt{x} = 114$

<b>The maths classroom</b>	If the answers are 1.7, 3.4, 6.8 and 4.8
<b>The dining hall</b>	If the answers are 1.75, 3.45, 6.75 and 4.85
<b>The gym</b>	If the answers are 1.7, 3.4, 6.8 and 4.9
<b>The playing fields</b>	If the answers are 1.7, 3.4, 6.7 and 4.8

## When?

Find the day where all the facts are correct

Q1.  $3x^2 - 5x = 10$

Q2.  $2x^2 + 2x = 25$

Q3.  $3x^2 - 2x = 11$

Q4.  $3x^2 + 7x = 93$

<b>Monday</b>	If Q1 = 2.8 and Q2 = 3.0 and Q3 = 2.3
<b>Tuesday</b>	If Q2 = 3.1 and Q3 = 2.2 and Q4 = 4.6
<b>Wednesday</b>	If Q1 = 2.8 and Q2 = 3.1 and Q4 = 4.5
<b>Thursday</b>	If Q2 = 3.0 and Q3 = 2.3 and Q4 = 4.5

## The Accusation

<b>Who</b>	
<b>Where</b>	
<b>When</b>	

