

Mini Murder Mystery Surds

Who

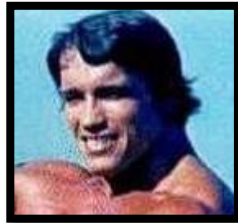
One of the 4 Action Heroes below has murdered Mr Lyons (bad times!). Analyse the problems to discover the murderer.

Each one has said which of the statements they believe are true or false. The innocent people have only made 1 or 2 errors. The guilty person has made 3 errors.

- A) $\sqrt{150} = 5\sqrt{6}$
- B) $\sqrt{125} = 5\sqrt{5}$
- C) $\sqrt{135} = 4\sqrt{15}$
- D) $\sqrt{90} = 3\sqrt{10}$

- E) $\sqrt{45} = 3\sqrt{6}$
- F) $\sqrt{63} = 2\sqrt{7}$
- G) $\sqrt{198} = 3\sqrt{22}$
- H) $\sqrt{28} = 2\sqrt{6}$

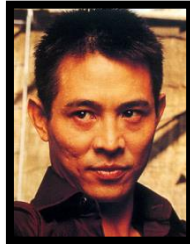
Arnold said
A is true
C is true
D is false
H is false



Sylvester said
E is true
G is false
B is false
D is true



Jet said
G is false
C is false
D is true
F is false



Wesley said
D is true
C is false
E is true
B is false



Where: Solve to find the town and building

$$(2+\sqrt{3})(1+\sqrt{3}) = \text{Building}$$

$$(\sqrt{3}+\sqrt{15})^2 = \text{Town}$$

$$\text{Police station} = 6+5\sqrt{3}$$

$$\text{Bradford} = 18 + 5\sqrt{6}$$

$$\text{Hospital} = 5+6\sqrt{3}$$

$$\text{Morecambe} = 18+6\sqrt{5}$$

$$\text{Fire Station} = 5+3\sqrt{3}$$

$$\text{Stockport} = 6+18\sqrt{5}$$

When: Answer the Questions to find the time and date of the murder

$\frac{1}{\sqrt{7}}$	$\frac{5}{\sqrt{2}}$	$\frac{1}{2 + \sqrt{3}}$
10:30am = $\frac{\sqrt{7}}{7}$	1 st of Feb = $\frac{\sqrt{10}}{2}$	2014 = $\frac{2-\sqrt{3}}{1}$
11:30am = $\frac{\sqrt{7}}{\sqrt{7}}$	2 nd of Feb = $\frac{\sqrt{7}}{2}$	2015 = $\frac{2-\sqrt{3}}{4}$
12:30pm = $\frac{7}{7}$	3 rd of Feb = $\frac{5\sqrt{2}}{2}$	2016 = $\frac{2+\sqrt{3}}{7}$

Why? Solve the Questions and then substitute the answer into the empty grid below.

A = $\sqrt{24}$	G = $\sqrt{18}$	M = $\sqrt{3} \times \sqrt{3}$	T = $\sqrt{5} \times \sqrt{8}$
B = $\sqrt{96}$	H = $\sqrt{3} \times \sqrt{11}$	N = $\sqrt{44}$	U = $\sqrt{20}$
C = $\sqrt{9} \times \sqrt{20}$	I = $2\sqrt{8}$	O = $\sqrt{144}$	V = $\sqrt{64}$
D = $\sqrt{2} \times \sqrt{3}$	J = $\sqrt{81}$	P = $\sqrt{1}$	W = $\sqrt{125}$
E = $\sqrt{72}$	K = $\sqrt{8}$	R = $\sqrt{54}$	Y = $\sqrt{63}$
F = $\sqrt{16}$	L = $3\sqrt{40}$	S = $\sqrt{1000}$	Z = $\sqrt{3} \times \sqrt{13}$

$\sqrt{33}$	$6\sqrt{2}$	$10\sqrt{10}$	$2\sqrt{10}$	12	$6\sqrt{10}$	$6\sqrt{2}$	3	$3\sqrt{7}$	$4\sqrt{2}$

$6\sqrt{5}$	$6\sqrt{2}$	$6\sqrt{5}$	$3\sqrt{6}$	$6\sqrt{2}$	$2\sqrt{6}$	3

Your Final Claim

WHO?	
WHERE?	
WHEN?	
WHY?	