Notes and answers for teachers.

The 5 clues for this murder mystery were made using a free programme called Tarsia. This is an easy to download programme which is popular with Secondary School Maths teachers but can be used in Primary schools as well. Children match up a calculation with an answer or in the case of clue 5, equivalent metric quantities. A geometric shape is formed and the clue is found by reading and deciphering the numbers on the outside of this shape, starting with the underlined number in a clockwise direction.

The clues are all in pdf format. The pieces of each jigsaw puzzle have a reverse side with the clue number on it. However, it is beyond my photocopying skills to produce perfect pieces with the edges for the front and back of each piece lined up exactly.

In order to avoid the classroom nightmare of hundreds of jigsaw pieces from different clues all mixed up, I would strongly suggest that each clue be photocopied on a different coloured paper. This sort of activity is often done by pairs or groups. Each pair or group only needs one clue at a time. As soon as the clue answer has been written down, the pieces can be scrambled ready for another group.

The pieces for clues 1-3 are equilateral triangles and for clues 4-5: squares. If you are really keen, the puzzles can be laminated.

Clue	**Shape of jigsaw**	**testing**	**answer**
1	equilateral triangle	tables	Killer is male
2	rhombus	Fractions of amounts	Wears glasses
3	parallelogram	% of amounts	Loves iphones
4	square	BIDMAS	Writes left handed
5	rectangle	Units of measurement	Drives a blue car

This should lead to the killer being identified as Delroy Dimples.

Tarsia download:
http://www.mmlsoft.com/index.php?option=com_content&task=view&id=11&Itemid=12

12
5
7×8
56
14
12
11×12
2×7
26
2×13
18
33
132
11×3
9
64
7×9
8×8
5×9
30
3×5
4×8
32
48
6×8
9
36
63
15
9×4
11
42
5
9×7
3×6
27
12
7×4
28
9×6
54
1
5×8
40
4×9
24
13
19

18
19
$\frac{4}{5}$of 20
16
$\frac{5}{7}$of 35
21
$\frac{3}{7}$of 49
1
25
7
$\frac{6}{7}$of 28
20
24
$\frac{4}{9}$of 45
$\frac{1}{9}$of 99
$\frac{2}{9}$of 99
22
$\frac{1}{12}$of 36
3
17
$\frac{1}{2}$of 34
5
11
12
$\frac{7}{8}$of 16
$\frac{1}{3}$of 90
15
14
30
$\frac{3}{8}$of 40
$\frac{1}{11}$of 22
$\frac{3}{4}$of 12
$\frac{5}{12}$of 24
23
2
8
9
10
1
9
13
$\frac{1}{8}$of 48
$\frac{1}{3}$of 39
$\frac{1}{2}$of 56
$\frac{1}{2}$of 58
19
28
29
19
$\frac{1}{3}$of 96
32
5
61
61

19
6
60% of 50
80% of 50
70% of 40
30
40
28
16
5
50% of 26
90% of 70
13
63
25% of 16
45% of 40
15% of 20
22
4
18
3
8
20% of 50
21
10
35% of 60
10% of 70
25% of 44
75% of 32
7
11
24
15
15
75% of 36
$12\frac{1}{2}$% of 48
27
6
30% of 120
40% of 80
5% of 40
36
32
2
14
12
19
5

9 5 $132\div(16-4)$ 10	20 11 $(25+14)\div(72-69)$ $39\div3\times2$	8 13 $3+6\times2$ 25	1 15 14 $2^2\times2^2$
9 $(152-32)\div(12-9)$ 12 7	26 40 $(2+2)\times7$ $4^2+2\times7$	8 28 $2^2\times3^2$ 24	9 36 4 $16\times0.5+0.75\times12$
9 61 48 2^2+3 3	30 32 $(5-8)\times(3+1)\times(2+2)$ $(50-5)\div5+20$	7 31 2×4^2 22	1 5 5 $1+9\times5$ $(45-8)-4^2$
9 5 2 $2+(7-8)$ 20	29 62 33 $23-3\times7$ 9	7 27 $1+4\times8$ 18	1 21 4 $3+8\times3$ $2\overline{3}$

$3m^2$ $30mm$ 1 2	$300mm^2$ $3cm$ $30m$ 12	$3000g$ $3000cm$ 5 21
$3km^2$ $300minutes$ 19 $30000cm^2$	$30cl$ $5hours$ $30minutes$ $3cm^2$	$30kg$ $1/2hour$ 3 $3kg$
$3000kg$ $5minutes$ 5 $3000000m^2$	$3cl$ $300seconds$ $30l$ $300ml$	$3000ml$ $30000cm^3$ 1 $30000g$
9 $3000m$ 22 $3tonnes$	18 $3km$ $300cm$ $30ml$	$\frac{1}{4}$ $3m$ 18 $3l$