



© 1997–2009, Millennium Mathematics Project, University of Cambridge.

Permission is granted to print and copy this page on paper for non–commercial use. For other uses, including electronic redistribution, please contact us.

May 2001

Regulars



Puzzle page



Jewels and potions

In a computer game, you score 7 points for every phial of potion you find and 11 points for every jewel you collect. There is no limit to the number of jewels and phials of potion you can collect.

Some scores are impossible: for instance you can't score 16, but you can score 14 (two phials of potion) or 18 (one phial and one jewel). What scores can you not make?

This is one of many puzzles from the book "Sums for Smart Kids" by Laurie Buxton (published by BEAM education, ISBN 1–903142–22–9), which is available from the publisher (info@beam.co.uk) at £12.50 + £3.53 p&p. In spite of the title, *Plus* thinks the book will be enjoyed by puzzlers of all ages.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70



You can see an animated version of this picture by downloading [Flash Player 5](#) and ensuring that Javascript is enabled, and then reloading this page.

You can send your solution by e-mail to <plus@maths.cam.ac.uk>.

For some challenging mathematical puzzles, see the [NRICH](#) puzzles from [this month](#) or [last month](#).

If you are stumped by the [PLUS issue 14 puzzle](#), you can [see how it's done](#).



Plus is part of the family of activities in the Millennium Mathematics Project, which also includes the [NRICH](#) and [MOTIVATE](#) sites.