



# TEAM NAME

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# MEMBERS

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There is a time limit. Your team has to get as many points as possible by doing the puzzles.  
 You can do them in any order. No more than two [2] puzzles on your table at one time.  
 When you finish a puzzle you have it signed off to score the points.

## Opening Ceremony

Score 20 points for each solution. (There are two.)

Signed	Score

No.	Name	Pts	Signed	Score
62	4 & 20 Blackbirds (Qu.1 only - 1 point each answer)	5		
188	Arithmagons 1 (Question 1)	5		
194	Arithmagons 2 (Question 1)	5		
123	Bob's Buttons	5		
113	Calendar	5		
56	Challenge	5		
7	Consecutive Sums (Score: 1/2/2)	5		
39	Criss - Cross Numbers	5		
35	Crosses (5 centre = 1 pt; other centre = 4 pts)	5		
170	Equilateral Triangles (Score 1/1/3)	5		
72	Farmyard (Score 1/4)	5		
129	Farmyard Friends	5		
50	Flight Departures (One answer only)	5		
101	Pyramid Puzzle (Question 1 only)	5		
79	Tangram Teasers (Black shapes = 1 pt; 2 pts for rocket)	5		
29	The Farmer's Puzzles (Score 2/3)	5		
30	Truth Tiles (One answer only)	5		
17	Truth Tiles 2 (Question 1 only)	5		
78	Which View (1 answer/question. Qu.1 = 2pts; Qu.2 = 3pts)	5		
110	Who Lives Where?	5		
196	Cross & Square (5 points for each shape)	10		
173	Crossing The River 1	10		
134	Eight Queens	10		

No.	Name	Pts	Signed	Score
163	Eureka (Question 1 only)	10		
54	Fay's Nines (One solution only)	10		
10	Find My Pattern (1st grid = 2 pts; 2nd grid = 3 pts)	10		
43	Number Tiles (One solution only)	10		
209	Pattern Cube	10		
119	Police Line Up	10		
132	Red To Blue (Change 4 red to blue by the rules)	10		
184	Reverse	10		
68	Six Square Puzzle (Any 5 puzzles; 2pts each)	10		
176	Steps (One solution only)	10		
215	Take Away Tiles (One solution only)	10		
38	The Mushroom Hunt	10		
80	A Dollar To Spend (Question 3 only)	15		
94	Crossing The Desert (One solution only)	15		
106	Crossing The River 2	15		
33	Dominoes (Score 2/3/10)	15		
125	Farmyard Race Day (Score 5/10)	15		
182	Jumping Kangaroos (Must have no backward moves.)	15		
44	Latin Squares (Score 5/10)	15		
67	Making Solids (Diagram 1 = 1 point; others = 2 each)	15		
16	Octaflex (Diagram 1 = 5pts, Diagram 2 = 10pts)	15		
211	Soft Drink Crates (Qu. 1 = 5pts; Qu. 2 = 10pts)	15		
142	Tower of Hanoi	15		
138	A Rectangle of Squares (Question 1 only)	20		
122	Football Ladder (Question 1 only)	20		
91	Pick a Box	20		
161	Soma Cube 2 (Question 1 only)	20		
146	The Haberdasher's Problem (Question 1 only)	20		
116	Who Owns The Monkey?	20		
149	A Stacking Problem	25		
185	Coloured Cubes	25		
143	Hearts & Loops	25		
92	Magic Square (3x3 = 10 pts; 4x4 = 15 pts)	25		
20	Pack The Box	25		
171	Number Discs (Score 5/10/15)	30		
166	Sphinx (Use 4 pieces = 5pts. Use 9 pieces = 25pts)	30		

Score Pg. 1	
Score Pg. 2	
Total Score	

# Working Mathematically

*First give me an interesting problem.*

## When mathematicians become interested in a problem they:

- Play with the problem to collect & organise data about it.
- Discuss & record notes and diagrams.
- Seek & see patterns or connections in the organised data.
- Make & test hypotheses based on the patterns or connections.
- Look in their strategy toolbox for problem solving strategies which could help.
- Look in their skill toolbox for mathematical skills which could help.
- Check their answer and think about what else they can learn from it.
- Publish their results.

## Questions which help mathematicians learn more are:

- Can I check this another way?
- What happens if ...?
- How many solutions are there?
- How will I know when I have found them all?

## When mathematicians have a problem they:

- Read & understand the problem.
- Plan a strategy to start the problem.
- Carry out their plan.
- Check the result.

## A mathematician's strategy toolbox includes:

- |  |                           |
|--|---------------------------|
| • Do I know a similar problem?         | • Act it out              |
| • Guess, check and improve             | • Draw a picture or graph |
| • Try a simpler problem                | • Make a model            |
| • Write an equation                    | • Look for a pattern      |
| • Make a list or table                 | • Try all possibilities   |
| • Work backwards                       | • Seek an exception       |
| • Break the problem into smaller parts | • ...                     |

*If one way doesn't work I just start again another way.*

