



**E-book Code:**  
**REAU0022**



# Mad Maths

## for 8 to 10 year olds

# Book 2

Stimulating problem solving  
activities for students aged  
8 to 10 years.

Written by Greg Mitchell. Illustrated by Terry Allen.  
© Ready-Ed Publications - 2001

Published by Ready-Ed Publications P.O. Box 276 Greenwood WA 6024  
Email: [info@readyed.com.au](mailto:info@readyed.com.au) Website: [www.readyed.com.au](http://www.readyed.com.au)

### **COPYRIGHT NOTICE**

Permission is granted for the purchaser to photocopy sufficient copies for non-commercial educational purposes. However this permission is not transferable and applies only to the purchasing individual or institution.

ISBN 1 87526 883 9

# Contents

<b>Worksheet</b>	<b>Curriculum Strand: Sub-Strand: Learning Outcome</b>	<b>Page</b>
Teachers' Notes		2
1	Number: Equations 3.13: Uses specified numbers to satisfy numerical constraints.	4
2	Number: Equations 3.13: Uses specified numbers to satisfy numerical constraints.	5
3	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving situations involving money.	6
4	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving situations involving money.	7
5	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving situations involving money.	8
6	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving word problems.	9
7	Number: Applying Numbers 3.14: Calculates word problems involving money and time.	10
8	Number: Applying Numbers 3.14: Solves word problems involving whole numbers and money.	11
9	Number: Count and Order 3.11: Calculates and orders amounts using whole numbers and money.	12
10	Number: Applying Nos 3.14: Makes appropriate choice of operation for solving situations involving money.	13
11	Measurement: Time 3.21: Interprets information in simple tables involving schedules and units of time.	14
12	Number: Number Patterns 3.12: Identifies number patterns and codes using a grid.	15
13	Space: 3.8: Uses directional language to locate given points on a grid.	16
14	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving word problems using whole numbers.	17
15	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving word problems using whole numbers.	18
16	Number: Applying Numbers 3.14: Selects appropriate methods of division and multiplication to solve word problems.	19
17	Measurement: Time 3.21: Solves word problems involving estimating and measuring time.	20
18	Measurement: Measuring 3.19: Uses numerical units to compare and calculate the height of a set of objects.	21
19	Measurement: Measuring 3.18: Compares and calculates area of 2D shapes using standard units.	22
20	Space (3.10) and Number: Number Patterns 3.12: Identifies patterns and order using shapes and whole numbers.	23
21	Working Mathematically 3.3: Uses a range of problem solving strategies incl. using diagrams and exploring patterns.	24
22	Working Mathematically 3.3: Extracts information from a story to solve a word problem.	25
23	Number: Applying Numbers 3.14: Makes appropriate choice of operation for solving word problems using whole numbers.	26
24	Chance and Data: Interpreting Data 3.27: Interprets data represented as a bar graph.	27
25	Chance and Data: Organising Data 3.25: Interprets and represents data using Venn diagrams.	28
26	Number: Applying Numbers 3.14: Calculates word problems involving whole numbers and time.	29
27	Measurement: Measuring 3.19: Uses standard units to compare and calculate the weight and volume of objects.	30
28	Chance and Data: Collecting Data 3.24: Gathers data from a story and use a simple graph to record information.	31
29	Number: Mental Computation 3.15: Estimates and rounds whole numbers and decimals.	32
30	Number: Applying Nos 3.14: Makes appropriate choice of operation for solving word problems using whole numbers.	33
31	Space: 3.8: Explores paths and directions using a simple network.	34
32	Number: Written Computation 3.16: Solves word problems using multiplication and division of whole numbers.	35
33	Number: Written Computation 3.16: Solves word problems using multiplication and division of whole numbers.	36
34	Space: 3.9: Visualises and represents spatial features and the order of a set of objects.	37
35	Chance and Data: Collecting Data 3.24: Gathers data from a story and uses a simple graph to record information.	38
36	Chance and Data: Interpreting Data 3.27: Reads and compares data from a table.	39
37	Chance and Data: Interpreting Data 3.27: Reads and compares data from a table.	40
38	Chance and Data: Interpreting Data 3.27: Reads and compares data from a table.	41
39	Measurement: Time 3.21: Measures time and duration using a calendar.	42
40	Number: Mental Computation 3.15: Calculates simple addition and multiplication word problems.	43
Answers		44

Name: \_\_\_\_\_

## Worksheet 2

When the seeds of the zib zub tree fall on, or are thrown at Hairy Mountain Monster they stick to his hair. Little Mountain Monster likes to see how high he can score by throwing the zib zub seeds at his big brother.

He can't figure out what the highest score could be if he could throw four seeds at Hairy Mountain and land only two seeds on any one number.

The only trouble is getting the seeds off afterwards. They pull out most of Hairy Mountain's hair and people start calling him Bald Mountain.



### Questions

1. What is the highest score possible with four seeds if only two can land on each number? \_\_\_\_\_
  2. What is the lowest? \_\_\_\_\_
  3. What throws (combination of four throws) could score 16? \_\_\_\_\_
  4. What throws of four shots could score 28? \_\_\_\_\_
  5. What is the highest score that could be made with six seeds? \_\_\_\_\_
  6. What is the lowest score that could be made with six seeds? \_\_\_\_\_
- What is the difference between highest and lowest? \_\_\_\_\_

### Madness

Make a scoreboard out of paper and play the game using counters instead of seeds.

Name: \_\_\_\_\_

## Worksheet 8

### Prices

#### ENTRY

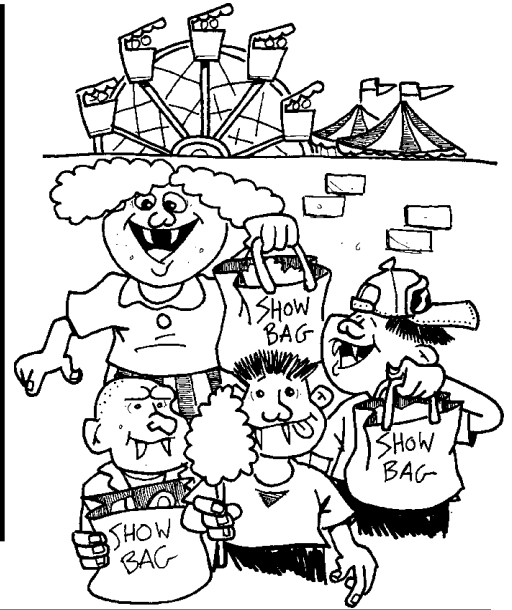
Family	\$15
Adult	\$ 6
Child	\$ 4

#### SHOWBAGS

False Teeth Bag	\$ 2
Snail/Worm Bag	\$ 2.50
Yuk Bag	\$ 2

#### RIDES

Scare Ya Ride	\$ 3
Ferrets Wheel	\$ 3.50
Smashem Cars	\$ 3



Janey Painy Monster went to the Mad Royal Show with her three little brothers.

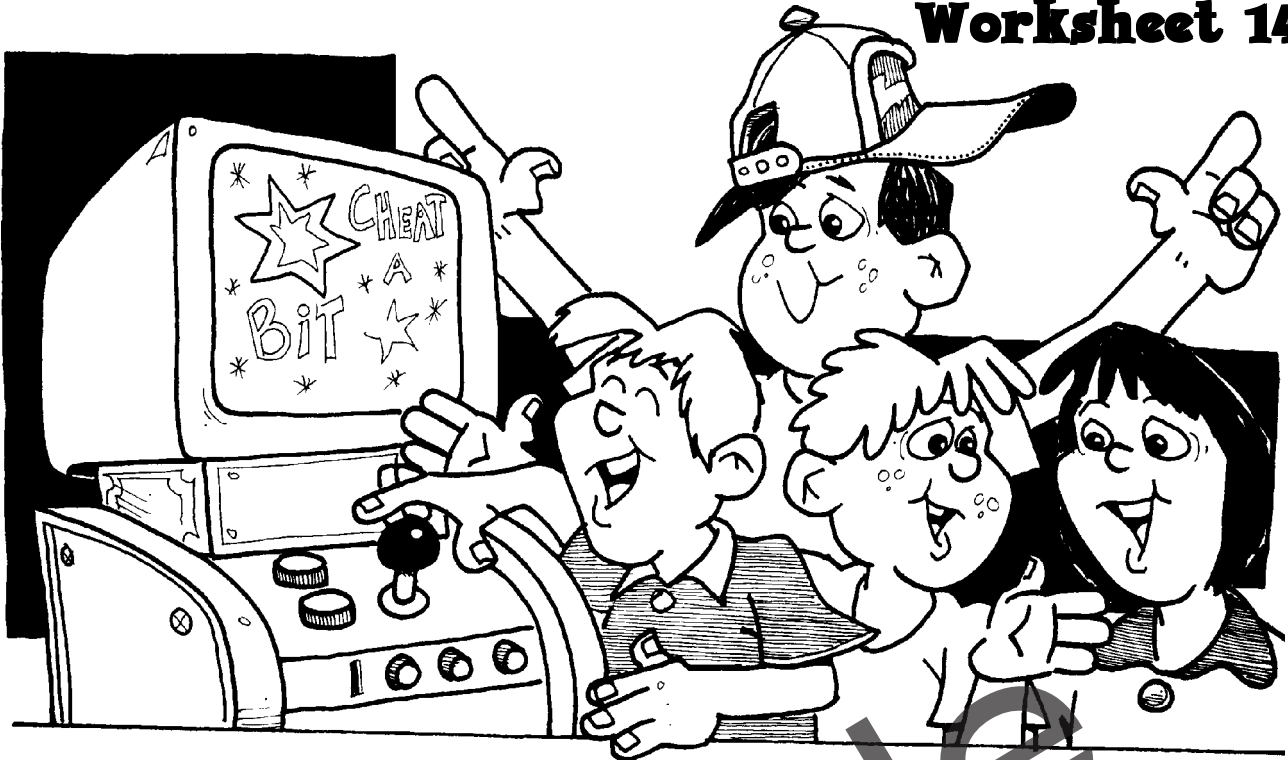
They had their own money for rides and showbags and Janey bought them all scareyfloss and a hotdog for lunch. The dog ran away though.

### Questions

1. Is it cheaper for Janey to take herself and her brothers in as a family or separately? \_\_\_\_\_
2. How much would lunch cost for one child if scareyfloss cost \$1.50 and a hotdog cost \$1.50? \_\_\_\_\_  
How much for 3 children and Janey? \_\_\_\_\_
3. What is the cheapest ride? \_\_\_\_\_
4. What is the dearest showbag? \_\_\_\_\_
5. What is the difference between the dearest ride and the cheapest showbag? \_\_\_\_\_
6. If you went on every ride and bought every showbag how much would you spend? \_\_\_\_\_

### Madness

Design your own favourite ride poster or design your favourite showbag.  
Give it a name and fill it with things you like.



Gurgle, Guffaw, Snigger and Smirk like to play each other on the computer game 'Cheat-A-Bit'.

Each Friday they have a competition where they all play one game against each other. They score 2 for a win and one for a loss.

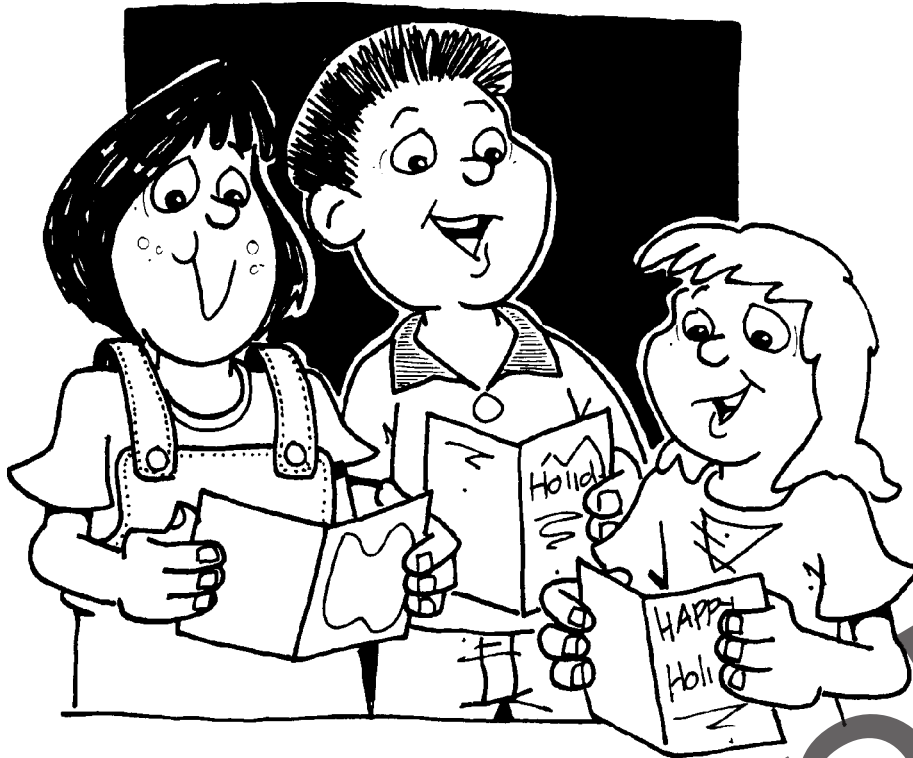
Last Friday Gurgle beat everyone and everyone else came equal.

### **Questions**

1. How many people are playing 'Cheat-A-Bit'? \_\_\_\_\_
2. How many games would each person play each Friday? \_\_\_\_\_
3. How many games would be played in a round? \_\_\_\_\_
4. If it cost 40 cents a game how much would each person need to play?  
\_\_\_\_\_
5. How many points would Gurgle have if he won every game? \_\_\_\_\_
6. What were the scores of the other three who tied last week? \_\_\_\_\_
7. If Gurgle scored a total of 12,000 points and the other three scored only half of this between them then how much would they have scored each if they score evenly? \_\_\_\_\_

### **Madness**

Invent your own computer game. Draw its screen.



Pete, Patsy and Polly exchanged cards when they were on holidays.

That means that each one sent each other a card when they were away.

They each bought their cards at the local newsagents before they left.

## Questions

1. How many cards did each person send? \_\_\_\_\_
2. How many cards did each one receive? \_\_\_\_\_
3. How many cards were posted altogether? \_\_\_\_\_
4. If one of the cards cost 45 cents to send how much did each person spend? \_\_\_\_\_  
How much was spent altogether? \_\_\_\_\_
5. If Pete sent two letters to everyone each week for four weeks how many letters would he send? \_\_\_\_\_  
How much would it cost him? \_\_\_\_\_
6. What is your postcode? \_\_\_\_\_  
What is the total of the numbers in your postcode? \_\_\_\_\_
7. What is the highest house number of your classmates' addresses? \_\_\_\_\_

## Madness

Write a letter to a good friend telling him/her how you're having a wonderful holiday on the moon.



Fergus Monster loves Monster Flakes for breakfast.

He likes them so much that he has four equal serves with his flavoured milk every morning. Each serve weighs 35 grams so he goes through a box of breakfast cereal fairly quickly.

Fergus likes to read the silly cereal jokes on his Monster Flakes - like this one:

"What cereal do cats like?" Mice Bubbles!

### **Questions**

1. How much does one serve of Monster Flakes weigh? \_\_\_\_\_
2. How much does Fergus eat at one breakfast? \_\_\_\_\_
3. If the box of Monster Flakes contains 420 grams, how many days does it take Fergus to eat a box of cereal? \_\_\_\_\_
4. If each bowl takes 40 ml of flavoured milk, how much milk does Fergus use on breakfast each day? \_\_\_\_\_  
How much milk would Fergus use in a week? \_\_\_\_\_
5. If each box of Monster Flakes costs \$3, how long would it take Fergus to eat \$12 worth of flakes? \_\_\_\_\_

### **Madness**

Invent your own breakfast cereal.

Name it after yourself and tell some lies about what it could do for you.