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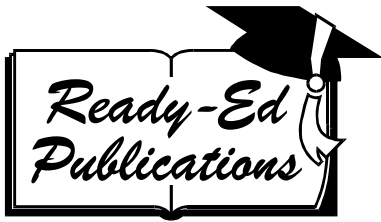
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Mad Math for Primary Students Book 1

**Stimulating problem solving
activities for students aged
6 to 8 years.**

Written by Greg Mitchell. Illustrated by Terry Allen.
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Teachers' Notes

Mad Math 1

Background

Mad Math is a problem solving based set of math activities for primary students. The basic aim of the series is to cloak the cognitive processes involved in problem solving in an attractive, enjoyable exterior. The activities are often fun ... mad even, but the basic underlying principles are sound.

Year Levels

Ordering these activities according to difficulty is extremely hard to do because student readiness for problem solving relies greatly upon their previous experiences and how the material is presented in the classroom. Similarly, it is hard to classify these books according to year level. Basically, Book 1 is framed for primary (Grades 1 - 3), Book 2 for Intermediate (Grades 3 - 5) and Book 3 for Grades 6 - 7 students. These levels are not prescriptive, thus materials should be selected to suit the student, group or class.

Calculators ... and other things

The aim of Mad Math is to develop problem solving skills rather than other, more mechanical number skills.

Any aid which assists in getting the problem solved is to be encouraged as the process is much more worthwhile than the answer in this case.

Calculators, blocks, counters, squared paper, pieces of paper to draw on and indeed anything that helps the process of problem solving should be encouraged and made available.

To get the best out of Mad Math

Each Mad Math page has three parts to it:

1. The Problem

Read through the problem with the student, group or class you are using it with.

Whilst reading for meaning is a very important skill, major emphasis here is problem solving skills, not reading. So, ensure that all students understand and are fully aware of the problem presented.

Discuss the problem before progressing to the questions, perhaps developing your own questions before moving on.

2. The Questions

Ensure that all the students **understand** the question and its context before they tackle the answer. The benefits flow from the process not the answer. In fact many students will have difficulty in framing a form of attacking the problem. Discussing the questions helps overcome this. Independence will develop with experience.

3. Madness ... The Extension

The final task adds a further fun dimension to those on the page. These activities may not be totally math orientated but they lend an enjoyable end to a math session.

The 'Madness' boxes are intended to be optional.

Assessment

In assessing these activities it is essential to consider more than just the answers.

"Did the student understand the problem?" is probably the most important question to be asked and evaluated. Questions about computational accuracy are of secondary importance ... but important nevertheless.

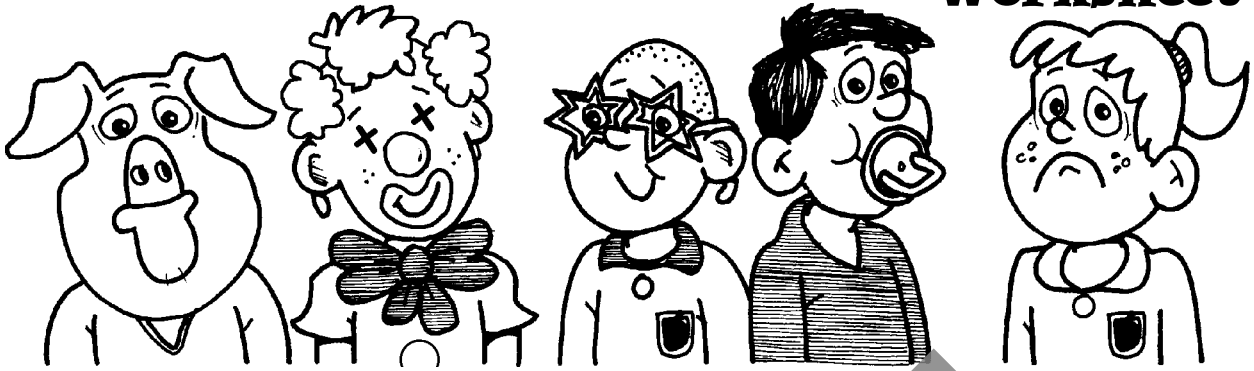
Do not forget to evaluate your own presentation of the material ... using materials such as this as 'busy work' may indeed cause more work than was intended.

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Name: _____

Worksheet 1



The twenty children in Miss Mad's room were having a dress up day. They came in all sorts of mad costumes. The best five costumes were:

Ben who came dressed as a pig, Meg who came with a really sad face, Jim who sucked a pacifier, Jan who shaved her head and wore funny glasses, and Ted who came differently from everyone else. The only trouble was that they all thought that their costumes should be everyone's normal school clothing!

Questions

1. Do you know who is who? Print the names under their pictures above.
2. Who sucked a pacifier? _____
3. Who looked unhappy? _____
4. What did Meg and Jan wear that was the same? _____
5. What did Ted dress up as? _____
6. How many boys are there in the picture? _____
How many girls? _____
How many children in the whole class? _____
7. How many eyes are there in the picture? _____

Answer **Yes** or **No** to these statements:

8. Ted is dressed as a clown. _____
9. Ben had a hat on. _____
10. There are only five children in Miss Mad's class. _____

Madness

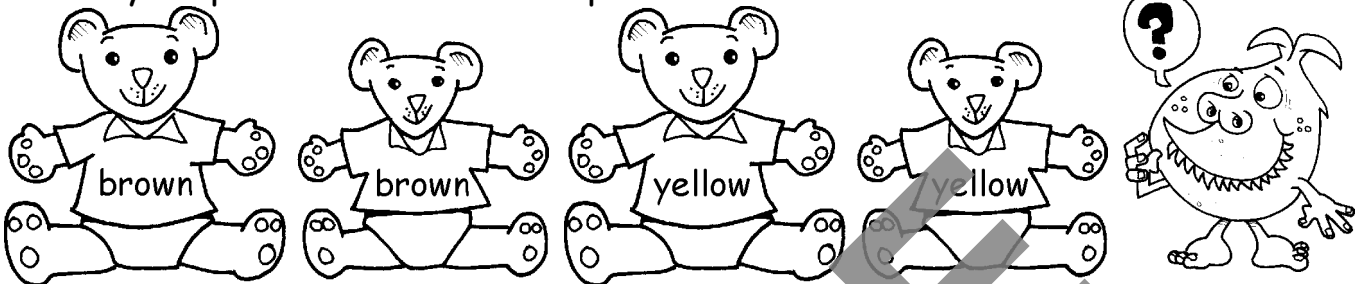
What would you like to come to school dressed up as?
On the back draw you dressed up in the maddest costume you can think of.

Name: _____

Worksheet 2

Bonzo Monster has lots of teddy bears (he has twice as many bears as he has teeth). He has big bears and small bears, and he likes yellow bears and brown bears best of all.

One day he put out his bears in a pattern like this ...

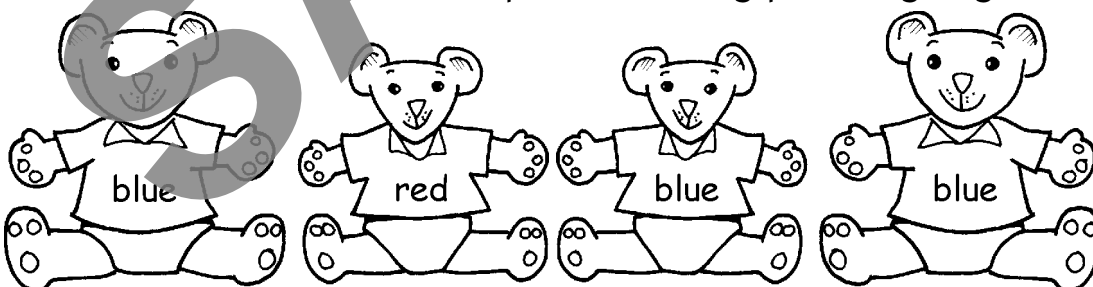


The only trouble was he couldn't think what bear to put next.

"These bears look like they are ready to start in a teddy bear race," said Bonzo. "To start a teddy bear race you have to say 'ready, teddy, go!'"
(Can you bear these weak jokes?)

Questions

1. If Bonzo has 15 teeth how many bears does he have? _____
2. How many bears would you have if you were Bonzo? _____
3. What are Bonzo's favorite colors? _____
4. Which bear would come next in the pattern above? _____
5. How many bears are in the pattern so far? _____
6. Draw the next bear to keep the following pattern going ...



7. Use these colors and sizes to make your own pattern. (Draw it here.)

Madness

Draw a pattern with your favorite type of toys.

Name: _____

Worksheet 3

Bozo Bear was the worst juggler ever!

He started off juggling six eggs but he broke three. He tried to juggle ten plates but he broke five of them. He was so bad at juggling he even went to sit down and missed the chair!

Questions

1. How many stars are on Bozo's hat? _____

2. How many freckles are on his face? _____

3. What number is missing from the triangles on his chest? _____

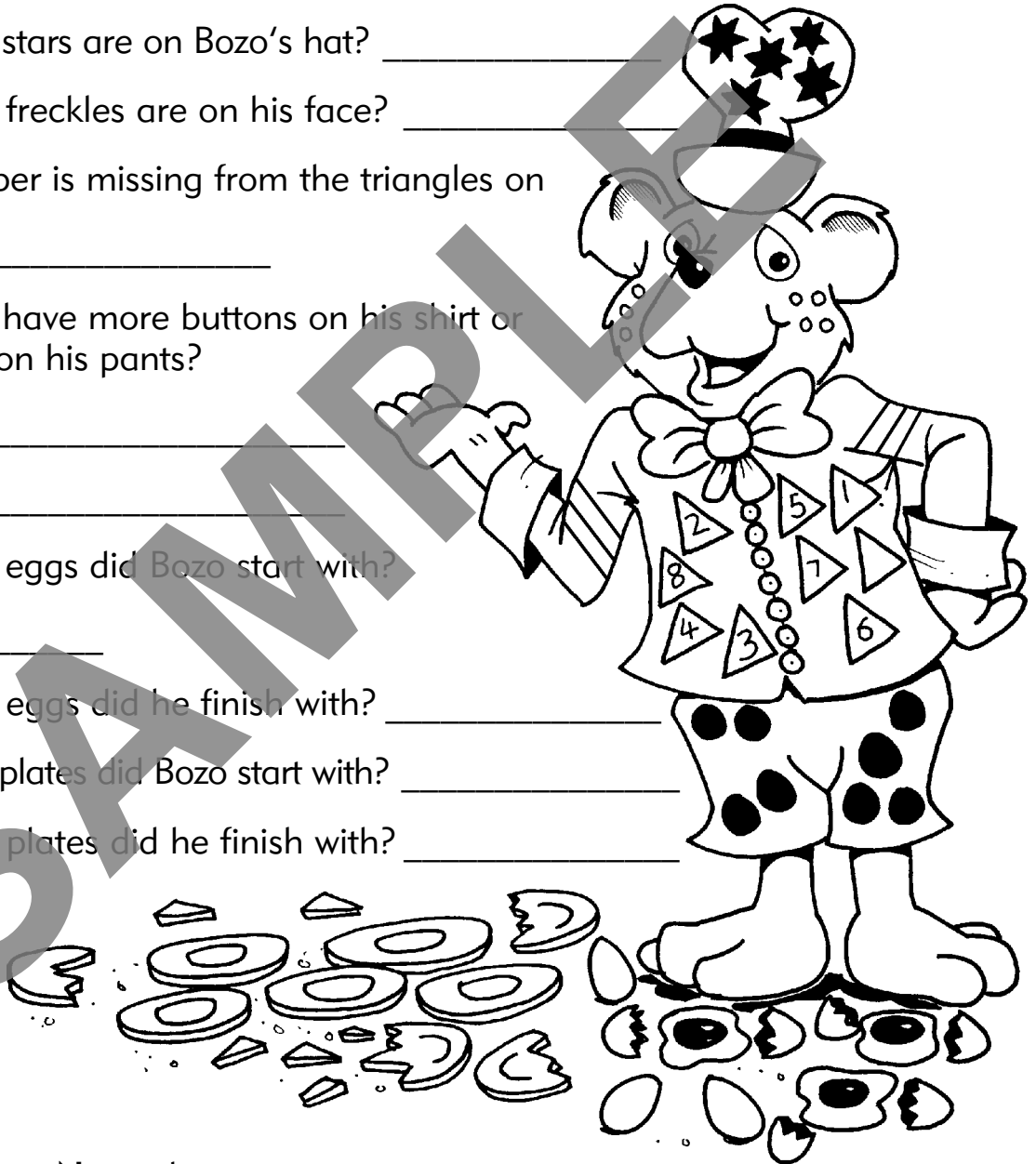
4. Does Bozo have more buttons on his shirt or more dots on his pants?

5. How many eggs did Bozo start with?

How many eggs did he finish with? _____

6. How many plates did Bozo start with? _____

How many plates did he finish with? _____



Answer **Yes** or **No** to these statements:

7. Bozo has more stars on his hat than stripes on both his arms. _____

8. I can juggle. _____

Madness

Think of ten silly things that you could juggle.
Draw them on the back of this sheet.