MR T'S SIMPLE SUMS

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LOADING THE PROGRAMS ON THE SINCLAIR SPECTRUM

1 Check that the ZX Spectrum is assembled as described in your Spectrum handbook.

2 Turn the TV set or monitor on.

3 Put the program into your cassette player with the label for the program you want to load facing you. Check that the tape is wound right back to the beginning. Rewind if necessary.

4 To load the program you want, type LOAD " ". (To type LOAD on the Spectrum press J . To type ", press SYMBOL SHIFT P .)

5 Start the cassette player and press ENTER
If the tape is loading correctly, after about a minute, Mr. T will appear on the screen.

6 Stop the tape when you're told to.

7 If you have difficulty loading, switch the Spectrum off and start again. Don't forget to rewind the tape.

8 Turn the computer off and on again before you try to load another program.

USING THE PROGRAMS

1 Press Q to:

  * choose a game
  * change the sound, or difficulty level.

Choosing a game:

The Menu Screen

1 Press Q and the Menu Screen will appear.

Changing the options:

The Parent Screen

1 From the Menu Screen, press Q for the Parent Screen.

  From any other point, press Q twice.

2 **Setting the difficulty level**
  Press 1 to make the game easier. Mr T will move to the *left* along the scale at the top of the screen (unless, of course, he is already as far left as he will go). Keep pressing until he is at the level you want.

  Press 9 to make the game harder. Mr T will move to the *right* each time you press the key. When you load the program, Mr T will always be at the left or "Easier" end of the difficulty scale.

Contents

You only need to use two keys to control all the Mr T programs.

2 Press the space bar (SPACE) to:
* start the first game on the tape
* play a game again.

3 ❦ on the screen is a reminder to press SPACE

2 To choose a game, type the number next to the name of the game you want. The line you choose will change colour.

3 If you change your mind, just type a different number.
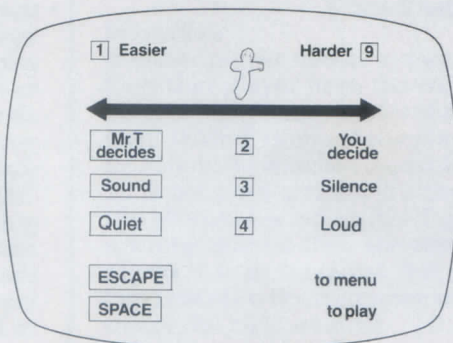
4 Press SPACE to start the new game.

3 **Changing the difficulty level**
Press 2 to change from "Mr T decides" to "You decide" and back again. The glowing bar shows which option you have selected. On "Mr T decides", the game will move automatically along the difficulty scale to match your child's rate of success.
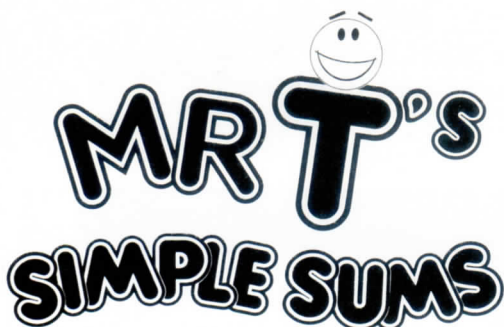
You can check your child's current level at any time by seeing where Mr T is on the scale.

"You decide" keeps the level of difficulty fixed where you have set it. This is particularly useful if the games are being used by a group of children, as you may want to reset the difficulty level for each child's turn.

4 Press 3 to turn the sound on and off.

5 Press 4 to select "Quiet" or "Loud", with sound on.

6 Press 2 , 3 or 4 again to reverse your original choice.

7 When you're ready, press SPACE to start the game.

1 Easier		Harder 9
Mr T decides	2	You decide
Sound	3	Silence
Quiet	4	Loud
ESCAPE		to menu
SPACE		to play

MR T's SIMPLE SUMS

How many Bees?

Arithmetic can be fun, and these games have been designed so that your child not only enjoys the "work", but also gains a feeling of satisfaction and success. Children are more relaxed when they are playing games, and so are more receptive to learning. But all children develop at different rates, and their speed of learning varies too. Don't hurry through these activities, but aim to build up confidence with continual support and encouragement: let your child set the pace.

We suggest that before you introduce the games to your child, you first look at the programs and the Parents' Handbook on your own. You will find instructions on how to load and control the games on pages 2 and 3.

How Many Bees? introduces simple addition and subtraction. Your child can play the games with Mr T, or two children can play together, taking turns to set and answer the sum. To begin with, though, sit down with your child and play the games together, until the rules become familiar. You may have to give a lot of help and guidance before your child feels confident enough to play the games with Mr T or with another child. Talk about what is happening on the screen as you play; it is this interaction between the two of you which is of such value.

You will see when you run the programs that the bees can be moved around indefinitely before finally setting a sum. This is to give the option of changing the numbers around, and so seeing that the *order* in which the numbers are added does not change the answer.

The addition (+) sign is used in the addition programs. Your child may not have come across this sign, even at school, because some maths schemes do not introduce it in the early stages. If this is so, show the + sign on the screen to your child, and explain that it is used instead of writing "add" or "together" every time because it's quicker. The word "makes" is used instead of the equals (=) sign and the words "take away" are used instead of the subtraction sign (−) in **How Many Bees?**

4

How to play Game 1: Addition

Press SPACE after loading the tape to play the first game, "Addition", at the simplest level. The computer will ask you to type in your name. If there is only one player, Mr T will take the part of the second player. Players (or Mr T) take it in turns to set the problems. The computer reminds the players whose turn it is by printing their name.

Mr T
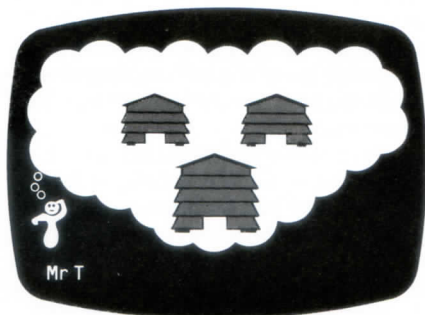
The computer selects a random number of bees to appear on the screen. At the first two game levels the total number of bees will never exceed 10. The bees appear at the left of the screen and the player whose turn it is positions the bees in one of the hives at the top of the screen, by using the left or right arrow keys to move the swarm, and the up and down arrow keys to move individual bees between the swarm and a hive. The players can redistribute the bees to the different hives as many times as they like, but they will not be able to continue the game until all the bees from the swarm are in a hive. The large hive is the "answer" hive. The players cannot move the bees to this hive.

When all the bees are in the chosen hives, the first player presses SPACE to set the sum. A question mark then appears in the first hive's doorway, and the second player has to count the bees and type in the correct number. If a wrong number is typed in by mistake it can be corrected. To confirm, press SPACE "Is it right?" appears on the screen and the first player, who set the problem, has to check the answer by pressing the N key for "no" or the Y key for "yes". This is repeated for the second number hive. When the sum is correctly set, all the bees will fly to the larger "answer" hive and buzz in turn so that they can be counted. As before the player who is answering the problem has to type in the correct total. The sum is then checked as before.

Scoring
The player who answers each part of the sum correctly *and* gives a right answer gains a honeypot and the player who answers all the "Is it right?" questions correctly also wins a honeypot.

Mistakes
If either player makes a mistake, then that player loses the chance of winning a honeypot for that sum. If Mr T is one of the players he should be watched carefully as he is not always right! If either of the players, including Mr T, gives a wrong answer then the computer allows it to be corrected, but after two mistakes the computer will insert the right answer.

Game Levels

The "Addition" game can be played at four difficulty levels, which are selected by moving Mr T along the segmented arrow at the top of the Parent Screen. The difficulty level can also be set to advance automatically, as your child progresses. See pages 2 and 3 of the Handbook for more details.

The levels are:

1 Adding to 10: two hives

2 Adding to 10: three hives. This is played in exactly the same way, but the bees are distributed between three hives instead of two, and three numbers need to be added. Many children find this quite difficult, so give your child plenty of practice at the lower level, and with the additional adding games suggested on page x below.

3 Adding to 20: two hives

4 Adding to 20: three hives.

When typing a two-figure number in these games, for example 14, the "1" must be typed first, followed by the "4".

How to play Game 2: Subtraction

In this game, the computer selects a random number of bees, which appear on the flower at the left of the screen. The bees buzz and flash in turn, and the computer prints the total number. The bees can then be moved off the flower and back on again by the player setting the sum, using the right and left arrow keys. Bees which have been removed from the flower leave a "shadow" as a reminder of the total.

The words "take away" also appear, between the flower and the swarm of bees which have been "taken away". The bees in the swarm buzz and flash so that they can be counted, the second player has to type the number of bees in the swarm, and the child setting the sum checks the answer as before. When the number has been checked, the word "leaves" appears beside the "answer hive" and the remaining bees fly down from the flower to the hive and flash in turn. The second player types the correct number into the "answer hive" as before, and the child setting the sum then has to check it.

Mr T takes his turn as one of the players, but as before he has to be watched because he is not always right!

Scoring: as above

Game Levels
Two levels of subtraction can be selected from the Parent Screen:

1 Subtraction from 10

2 Subtraction from 20.

Key Summary

← → Move bees from side to side
↑ ↓ Move single bees from swarm to hive and back: addition only

¶ Press SPACE to confirm or move on

Number keys: to type number of bees
Y = Yes, N = No to question "Is it right?"

Honey Bear's Breakfast

Honey Bear's Breakfast has been designed to allow children to practise, and gain fluency in, the skills of addition and subtraction learnt in **How Many Bees?** while at the same time having a lot of fun!

This game is designed for children who are at a later stage of learning than **How Many Bees?** The number of bees in this game depends on the difficulty level, and bears no relation to the numbers the children are adding or taking away; so make sure that your child is able to add and subtract without relying on counting objects.

The game levels will give your child practice in adding up to 99 and in subtracting up to 99. No carrying is involved but the figures are written under each other, e.g.

$$\begin{array}{r} 2 \\ +3 \\ \hline 5 \end{array}$$

The subtraction sign (−) is used in these games instead of the words "take away". Your child may be familiar with this layout from school; if not, explain before you play the game that it is used because it is quicker than writing "take away" or "subtract" every time.

Load the program and look at it on your own with the Parents' Handbook before introducing it to your child; you are the best judge of whether your child is likely to be ready to try these games.

How to play

Honey Bear's Breakfast has been designed to be played by two children (or a child and adult) but the players work as a team, not against each other. The players will have to discuss the choices open to them as they plan their strategies. The more expert the players become, the more they will be able to plan ahead. Player co-operation is an important part of this game.

When you load **Honey Bear's Breakfast**, you will see a bear on the left of the screen and a pot of honey on the right with some bees around it. (The number of bees will depend on the difficulty level.) The bear is trying to reach the honey pot but is prevented by the bees. Because the bear is frightened of the bees, he cannot reach the honey as long as there are any bees guarding it.

To help the bear reach his breakfast, the children have to answer the sum that appears on the screen. Before they type in the answer, however, they have to decide whether they are going to try and get rid of a bee or move the bear nearer the honey pot. One child controls the key to move the bear (T for "Teddy Bear") and the other the key for removing the bees (B , of course).

If the children have chosen to press the T key, a right answer will move the bear one step nearer the honey. But a wrong answer

will move him back a pace (unless he is already at the starting point). Too many wrong answers make him disappear off the screen and end the game. If the children do not respond quickly enough, the bear points at the sum and stamps his foot. The children will know when he gets too near the bees because he will cover his eyes with his paws to show that he is too frightened to move any nearer. Further presses of the T key will not move him any further: the children will have to turn their attention to removing the bees which guard the honeypot.

If they press the B key and their answer is right, a bee will fly away. But if the answer is wrong, an extra bee will fly to the honey. If they get too many sums wrong, the bees will descend on to the honey pot and carry it away, and the game will be over.

The children cannot correct their mistakes in this game.

When adding or subtracting with double figures, the unit column highlights first. Once a number has been typed, the tens column highlights. So to type e.g. "14", type the "4" first, then the "1", as you would if you were adding a column of figures.

Key Summary

Before typing the answer to the sum, type

T to move the bear
        or
B to remove the bees

Additional Activities

There are many activities that you can do with your child which will help to develop an awareness of number.

Adding

Young children begin adding by counting individually the number of objects in two separate groups, then moving these objects into one large group and counting them together.

Before playing **How Many Bees?** you might like to introduce your child to little addition problems, such as building a tower with three red bricks and another tower with two blue bricks. Put the bricks together. How many are there?

Encourage your child to make up sums as well. Don't write anything down, just talk about them together. Later, you can have some cards numbered up to 9, a card with a plus sign (+) on it and another card with the word "makes", and let your child make up a "number sentence". The "3" card in this example would be put next to the red tower, followed by the card with the addition sign on it; then the "2" card placed next to the blue tower with the "makes" card beside it. All the bricks can then be moved into one group and counted and the number sentence completed. Encourage your child to find the right cards and to say the number sentence as the sum is made up.

Tens and Units

Here are some games to give your child the chance to handle larger quantities of objects, before you introduce the higher levels of **How Many Bees?** A button box is useful: and the buttons can be sorted by colour or shape, and then the different groups added together.

For this activity you will also need nine cards numbered from 10 to 90 and nine cards numbered from 1 to 9. If they are this shape the unit card can later be matched on top of the "10" card:

Begin by grouping in tens. For example, ask your child to sort out ten buttons – thread them onto some wool or put them onto a plate. (Or you could use straws, made into bundles of ten and held with an elastic band.) Now find the "10" card. Make up another group of ten and find the "20" card, and so on. Gradually, with your help, your child will begin to realise that the left-hand figure indicates how many tens there are in each number. Make this into a game by showing the "30" card and asking your child to give you that number of objects, that is three groups of ten. Make sure you *say* the numbers as well as showing the cards. Ask for a number, e.g. fifty: your child then has to give you five groups of ten buttons and the "50" card.

The next step is to look at tens and units together. Begin with the numbers between 11 and 20.

This time you will need both the tens and units cards. Count out 11 buttons; then show that they can be grouped into one ten and one one (10 and 1). Put the "10" card with the ten buttons and the unit card (1) with the one. Repeat with 12, pointing out that 12 is one ten and two ones (10 and 2). Continue up to 20. These numbers are harder and will probably take your child longer to learn; "eleven", for example, doesn't suggest one ten and one unit and "fourteen" sounds like four tens. When your child can confidently lay out any of the numbers you ask for, show how, by laying the unit card on top of the ten card with the pointed ends together, the number 11 is produced.

Repeat with the other numbers. These activities can be used for higher numbers as well, and will help not only in the recognition of a number but also in the understanding of its structure.

Subtraction Games

All children have had practice with simple subtraction in real life at home before starting school: a child is given a packet of sweets and eats some or all of them. A toddler will look to see where they have gone; but an older child is aware that there are not as many as there were at first.

Number Snap games can easily be made at home – encourage your child to help you.

Each number is represented in three ways: by objects, words and figures. Begin with "Snap" to 5. Make five cards for "one". Draw or cut out a picture of a ball for one

card, put the picture of a dog on another, write the number 1 on two other cards and write the word ONE on the fifth card. Repeat for the numbers 2, 3, and 4, using five cards for each number. Repeat again for the number 5, but make ten cards. (Always make sure you have a higher ratio of the chosen "Snap" cards in your pack.) "Snap" can be called for any two cards which represent the chosen number in some way, e.g. the numeral 5, five objects or the word "five". The same idea can be extended to 10, 15 and 20, if you have the patience to make larger numbers of cards. Group the shapes in different ways for the higher numbers, so that your child begins to recognise different number groupings. Limit the number of playing cards to about 30, depending on the number playing and the concentration span of your child.

Later, "Snap" can be played in the same way with simple addition sums on each card: e.g. $2+3$ and $4+1$ both add up to 5, and so "Snap" should be called.

Subtraction sums can also be made into a "Snap" game: e.g. $6-4$ and $10-8$ are a match.

Dominoes
Number dominoes is a good game for children who are able to add up to 12. The first person to add up the two numbers at either end of the row of dominoes collects a counter.

Dice
Use two for children who can add up to twelve (or block out the sixes with sticky labels if adding up to ten). Players have to throw the dice and add the two numbers together. A counter is collected for each correct answer or alternatively an "answer" card matching the total of the dice thrown is taken from a pack of cards numbered, for example, from 2 to 12. It becomes more difficult, of course, as the "answer" cards run out. The person to collect the last card wins. Extend the game using three and four dice. It is important for children to have practice in adding three and four numbers together as well, even when using lower numbers.

Skittles
Skittles can be made out of old washing-up liquid bottles, lemonade bottles etc. (*not* glass). A soft ball will also be needed. For younger children count the number of skittles knocked down in each round; if your child is adding below 10, limit the number of skittles put out to ten or below. Have cards numbered from 0 (for those that miss!) to 10. For example the first child knocks three skittles down and collects a "3" card; the second child knocks five skittles down and collects a "5" card. Have "and" written on three or four cards (depending on how many are playing) and "makes" on other cards, so that a sum can be laid down during each round. A score can be kept of who wins each round – more adding up! For older children, the skittles themselves can be numbered. Occasionally, make a deliberate mistake if you are playing, to maintain interest and as an incentive to check your sums as well!

Skittles can also be played to

practise simple subtraction. The same number cards can be used but cards with "take away" and "leaves" replace the "and" and "makes" cards. For example, the children decide they are going to try and knock down ten skittles, so they choose a "10" card and stand up ten skittles. The first child knocks three skittles down and collects a "take away" card which is placed next to the "10" card, followed by a "3" card. The "leaves" card is put down next, and the number sentence completed with the "7" card.

Everyday Arithmetic

Games are fun and useful in helping children to practise and revise the mathematical concepts they have been taught, but it is also very important for them to be able to apply the rules to real situations.

Begin with familiar things like laying the table. How many knives and forks do we need? How many cups, plates?
Or the washing: how many socks are there? How many pairs? How many buttons should there be on your shirt? How many are missing?
Or food: let's have two cakes each. How many do we need to buy? If you have three biscuits, how many will be left? We have only got eight sweets. How many can we have each?

Encourage your child to add on – this is something we do a lot as adults. There are three mugs on the tray but Uncle Tom, Aunty and Jane have come to tea so we need six mugs altogether today. How many more mugs do we need?

CREDITS

Good Housekeeping Software presents a comprehensive range of carefully structured early learning software for your home computer.

Learning aims

Each package covers a range of skills which will help prepare your child for school, based on three kinds of activities:

- activities for you and your child to do together, designed to encourage discussion and promote development of your child's vocabulary

- games for one or two children to play on their own

- suggestions for follow-up activities.

Room to grow

All the programs in the Good Housekeeping Early Learning range have been designed for repeated play, and to allow children to work through them at their own pace. Some children learn quickly, others more slowly, but they always progress if they are given time and sufficient practice at one stage before they move on to another. So all Good Housekeeping Software has:

- games with several levels which cater for children of different ages and abilities to grow with your child

- adjustable speed and difficulty levels for each program which can be set by you, or programmed to adjust automatically to your child's progress

Easy to use

Good Housekeeping Software has been designed to be easy for you to use, even if you are new to computing. So you and your child can gain confidence in using computers as a learning tool together.

You'll find these same features in all the packages in the Good Housekeeping Early Learning range. But, important as they are, always remember that learning with Mr T should first of all be fun – for you and your child!

And I have lots more games.

MR T's
MEASURING GAMES

MR T's
SHAPE GAMES

MR T's
NUMBER GAMES

MR T's
MONEY BOX

MR T's
ALPHABET GAMES

MR T
TELLS THE TIME

MR T
IN THE MYSTERY MAZE

MR T's
JUNGLE STORIES

MR T's
SIMPLE SUMS

MR T
MEETS HIS MATCH

MR T
MAKES MUSIC