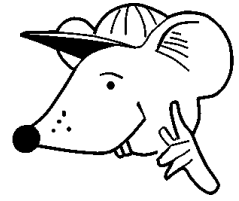


MATHEMATICS



N.S. Yr. 4 P.82

**Use all four operations to solve
word problems involving 'real life'.**

Equipment

Paper, pencil, calculator

MathSphere

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Concepts

Children need to be able to read and understand problems written in prose that include some elements of real life, although, particularly with younger children, 'real life' has to sometimes be a little artificial in order to keep the problems within their ability levels.

They should be able to read the problem, understand the situation described, be able to see what processes are necessary to solve it and then lay out their answer clearly, giving some explanation.

Explanations should be brief and to the point and it is good practice to encourage children to set out their answers down the page, one line at a time.

The following example shows one way of doing this.

Q.

John has three boxes, each with six cakes. Pat has four boxes, each with eight cakes.

How many cakes do they have altogether?

How many more cakes does Pat have than John?

A.

Number of cakes John has $= 6 \times 3 = 18$

Number of cakes Pat has $= 8 \times 4 = 32$

Number of cakes altogether $= 18 + 32 = \underline{50}$

Pat has $32 - 18 = \underline{14}$ cakes more than John.

The same method may be used both for simple and more complex problems.

The problems in this module are divided into two types: those involving just one step to arrive at the answer and those involving more than one step.

****Note to Parents:** If children have previously done little of this type of work before, they often find it very confusing, so try to build confidence, not destroy it. Adults find these problems **much** easier than children generally do.

Single Step Operations

Here are some problems written in words. They look quite long.

You need to read them very carefully to see what you need to do.

Your teacher or parent will show you how to set out your answers.

1. What do I need to subtract from 22 to get 15?
2. I think of a number and double it. The answer is 28. What was my number?
3. How many arms and legs would a class of 30 pupils have altogether?
4. A box holds six eggs. How many eggs do eight boxes hold?
5. Peter has 26 marbles. Simon has half as many. How many does Simon have?
6. A school has 84 pupils. One day 17 are away. How many are left in the school?
7. The Maths Rats had a party. Divvy ate twelve sausages, Multi ate five, Addy ate nine and Subby ate six. How many did they eat altogether?
8. A box holds nine pens. How many pens would eight boxes hold?
9. Eighteen chocolates are shared equally between six children. How many do they have each?
10. A class library has four shelves. Each shelf can hold fifteen books. How many books can all the shelves hold?

Single Step Operations

Here are some problems written in words. They look quite long.

You need to read them very carefully to see what you need to do.

Your teacher or parent will show you how to set out your answers.

1. A girl cycled forty-eight kilometres before lunch and twelve kilometres after lunch. How much did she cycle altogether? How much further did she cycle before lunch than after lunch?
2. I think of a number. If I multiply it by 3, the answer is 15. What is the number?
3. Peter runs eighty metres. Joanne runs one hundred and sixty metres. How much further does Joanne run than Peter?
4. A table has four legs. How many legs do twenty tables have?
5. A roll of film takes twenty four pictures. How many pictures will three rolls take?
6. Mrs Ahmed has a piece of ribbon 180m long. She cuts off a piece twenty eight centimetres long. How much is left?
7. Mrs Turner uses string to wrap parcels. If each parcel needs 25cm of string, how many parcels can she wrap with 200cm?
8. How many egg boxes would you need for 152 eggs if each box holds six eggs?
9. Divvy can eat four fruit cakes in one minute. How many cakes can he eat in six minutes? (Maths Rats love fruit cakes!!!)
10. I run 100 metres in 10 seconds. How many metres is that in each second ?

Single Step Operations

Here are some problems written in words. They look quite long.

You need to read them very carefully to see what you need to do.

Your teacher or parent will show you how to set out your answers.

1. Mary can stay underwater for 53 seconds, Omeo for 35 seconds and Joan for 42 seconds. How much is that altogether?
How much longer can Mary stay underwater than Omeo?
2. I have a book with 48 pages. It has four chapters and each chapter is the same length. How many pages are there in each chapter?
3. How many centimetres long would six metre sticks be if they were put end to end?
4. Write down all the factors of twenty.
5. A class of thirty pupils decided to play netball. If there are seven players in a team, how many teams could there be?
6. Six children and two adults go for a twenty kilometre cycle ride. How many kilometres do they cycle altogether?
7. What number is fifty three greater than one hundred and seventy?
8. How many boxes would you need to pack two hundred books, if each box holds thirty books?
9. Multi has a piece of string two hundred centimetres long. He cuts off a piece thirty seven centimetres long. How much is left?
10. What are all the factors of thirty?

How are you doing?

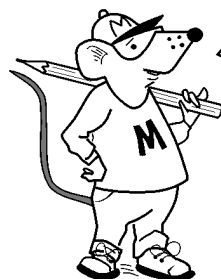
Multi Step Operations

Here are some longer problems written in words.
You need to work out more than one thing to get
the answers.

**Read them very carefully to see what you
need to do.**

Your teacher or parent will show you how to set
out your answers.

1. John has 50 toys and his sister, Petra, has 38. If they take 23 of their toys to a car boot sale, how many do they have left altogether?
2. Feetfirst Junior School lost their first netball match 16 - 12 and won their second match 18 - 15. How many goals did they score altogether?
3. I think of a number. I double it and add seven. The answer is twenty nine. What number did I begin with?
4. Four boxes of biscuits have thirty biscuits each and another has twenty seven biscuits. How many biscuits are there altogether?
5. Michael and Samantha have 60p pocket money each. Toni and John have 70p each. How much is this altogether?
6. There are 140 books on the top shelf of a book cupboard. The two shelves below each have 120 books. How many books are there altogether?
7. Three rolls of film can take twenty four photographs each. Four more rolls of film can take thirty six photographs each. How many photographs can the seven rolls of film take in total?
8. In a class the sixteen boys each have ten marbles and the fifteen girls each have eight marbles. How many more marbles do the boys have in total than the girls?

Multi Step Operations

Here are some longer problems written in words. You need to work out more than one thing to get the answers.

Read them very carefully to see what you need to do.

Your teacher or parent will show you how to set out your answers.

1. In a class there are thirty two children. One quarter of them cycle to school. One half of them go by car. How many are left?
2. Mary has fifty four stamps. John has thirty six stamps. If Mary gives John eight of her stamps, how many more will Mary have than John?
3. I think of a number and write down all the factors of the number except the number itself. The factors I have written down add up to the number. The number is between twenty four and thirty. What is it?
4. Harry has one more sandwich in his lunch box than Tom. In total they have fifteen sandwiches. How many does each man have?
5. Mary and Freddy have eight books each. Jackie and Sam also have eight books each. How many do they have altogether?
6. Dibble Street has fifty three houses and Charlotte Street has one hundred and sixty four houses. If seventeen more houses are built in Dibble Street, how many more houses does Charlotte Street now have than Dibble Street?
7. Four times a number subtract eight is sixteen. What was the number?
8. For every ten pupils going on a trip, one adult is allowed to go free. What is the greatest number of people that can go on this trip altogether if thirty seven children go?

Answers**Page 3**

1. 7 2. 14 3. 120 4. 48 5. 13 6. 67 7. 32 8. 72
9. 3 10. 60

Page 4

1. 60 Km 36 Km 2. 5 3. 80 m 4. 80 5. 72 6. 152 7. 8
8. 26 9. 24 10. 10 m

Page 5

1. 130 secs 18 secs 2. 12 3. 600 cm 4. 1, 2, 4, 5, 10, 20 5. 4
6. 160 Km 7. 223 8. 7 9. 163 cm 10. 1, 2, 3, 5, 6, 10, 15, 30

Page 6

1. 65 2. 30 3. 11 4. 147 5. 260 p or £2.60 6. 380 7. 216
8. 40

Page 7

1. 8 2. 2 3. 28 4. Harry 8, Tom 7 5. 32 6. 94 7. 6 8. 40