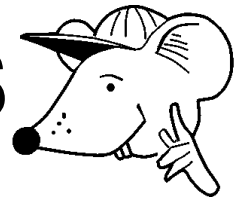


MATHEMATICS



N.S. Yr. 4 P.58

**Know multiplication facts by heart.
Relationship to division. Double and halve.**

Equipment

Paper, pencil,

MathSphere

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Concepts

Children should know and use the following vocabulary: *double, twice, half, halve, whole, divide by, divide into.*

Children should have a good working knowledge of all table facts up to $\times 10$ in the following tables: 2, 3, 4, 5 and 10 and studying the 6, 7, 8 and 9 times tables for later use.

They should also know them 'backwards', eg. know how many eights make 56.

On the MathSphere CD there are pages of practice multiplication tables for this particular set of tables with the opportunity to time how long it takes to complete a table and then try for improvement in speed and accuracy.

They should be able to answer a whole range of mental questions such as:

What are eight fives?
How many fours are there in 36 ?
What is 4 times 8 ?
Multiply 5 by 9.
What is 3 multiplied by 0 ?
What is 24 divided by 4 ?
What is 30 shared between five people?
What is one quarter of 24 ?

Children should understand that halving is the inverse (opposite) operation to multiplication by 2.

They should be able to answer a range of questions on doubling and halving involving decimals used with money (ie. half of £24.60), and simple units such as centimetres.

It is very important to know your tables really well.



Yes, especially if you want to be good at mathematics!



That's why I'm so good at my tables.

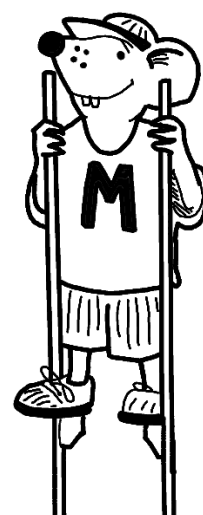


Take this opportunity to see which table facts you know really well.

Fill in all the table facts you know without straining your brain.

×	2	3	5	1	10	4
3						
7						
2						
10						
5						
1						
9						
6						
4						
8						

Are you beginning to know the 6, 7, 8 and 9 times tables too?



Now write down all the ones you are not sure about and ask someone to test you until you know them all.

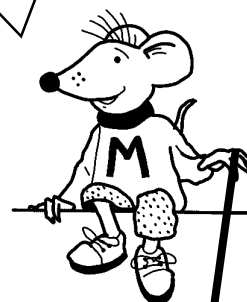
Here are some questions about tables.

How quickly can you answer them?



1.
 - a. How many threes are there in 21 ?
 - b. How many fives are there in 45 ?
 - c. How many fours are there in 28 ?
 - d. How many tens are there in 80 ?
 - e. How many twos are there in 16 ?
 - f. How many threes are there in 24 ?
 - g. How many fives are there in 15 ?
 - h. How many twos are there in 18 ?
 - i. How many threes are there in 27 ?
 - j. How many fives are there in 25 ?
 - k. How many tens are there in 100 ?
 - l. How many fours are there in 36 ?
 - m. How many threes are there in 27 ?
 - n. How many fives are there in 35 ?

Can you answer any of these more difficult questions?



$$4 \times 6 =$$

$$5 \times 7 =$$

$$6 \times 6 =$$

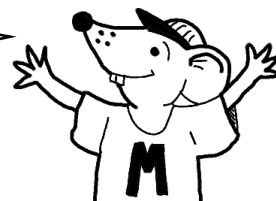
$$7 \times 6 =$$

$$8 \times 10 =$$

$$9 \times 7 =$$

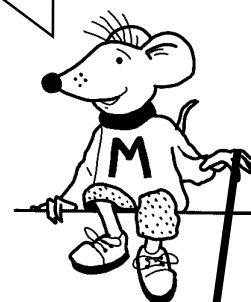
Here are some more questions
about the table square.

How quickly can you answer them?



1.
 - a. How many fives are there in 35 ?
 - b. How many fours are there in 32 ?
 - c. How many threes are there in 18 ?
 - d. How many tens are there in 70 ?
 - e. How many fives are there in 45 ?
 - f. How many fours are there in 36 ?
 - g. How many twos are there in 10 ?
 - h. How many fours are there in 24 ?
 - i. How many tens are there in 60 ?
 - j. How many threes are there in 21 ?
 - k. How many fours are there in 20 ?
 - l. How many fives are there in 30 ?
 - m. How many fives are there in 40 ?
 - n. How many threes are there in 24 ?

Can you answer any of
these more difficult
questions?



$$3 \times 9 =$$

$$7 \times 7 =$$

$$4 \times 8 =$$

$$8 \times 8 =$$

$$7 \times 10 =$$

$$8 \times 6 =$$

Here are some questions about the table square. Answer them as quickly and accurately as possible. Can you beat your friends and still get them all right?

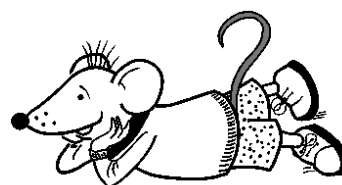
1.

- | | |
|--|---|
| a. What are four fives? | b. How many threes are there in 18 ? |
| c. What is eight times four? | d. What is five multiplied by seven? |
| e. What are three fours? | f. What is 32 divided by 4 ? |
| g. What is 3 multiplied by 8? | h. How many threes are there in 18 ? |
| i. How many fours are there in 32 ? | j. Multiply 5 by 9. |

2.

- | | |
|--|---|
| a. What are five sixes? | b. How many threes are there in 21 ? |
| c. What is nine times four? | d. What is 3 multiplied by 7? |
| e. What are five sixes? | f. What is 36 divided by 4 ? |
| g. What is 2 multiplied by 8? | h. How many 5s are there in 20 ? |
| i. How many fours are there in 20 ? | j. Multiply 4 by 4. |

You might need a break before the next ones!



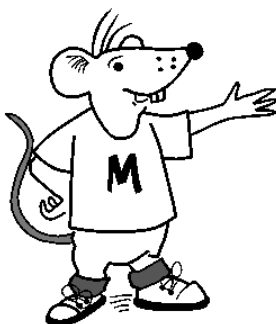
Here are some harder questions.

3.

- | | |
|---|---|
| a. What is 36 shared between 4 ? | b. What is 5×9 ? |
| c. Divide 27 by 3 | d. What is one fifth of 25 ? |
| e. Divide 18 by 6 | f. Divide 24 by 4 |
| g. What is $\frac{1}{4}$ of 36 ? | h. What is 32 shared between 4 ? |
| i. Divide 5 into 45 | j. Multiply 5 by 7. |

If a half of 18 is 9,
then doubling 9 gives
18.

Wow!



1. Answer these questions:

Eg. in **a.** the opposite is "**Double 9 is 18**".

a. A half of 18 is 9, so double 9 is _____ .

b. $\frac{1}{2}$ of 26 is 13, so double 13 is _____

c. A half of 78 is 39, so double 39 is _____

d. $\frac{1}{2}$ of 86 is 43, so double 43 is _____

e. A half of 150 is 75, so double 75 is _____

f. $\frac{1}{2}$ of £38.20 is £19.10, so double £19.10 is _____



How are you getting on?

2. See how quickly you can **double** all these numbers:

- | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|
| a. 11 | b. 31 | c. 20 | d. 15 | e. 33 | f. 45 | g. 36 | h. 24 |
| i. 18 | j. 32 | k. 43 | l. 50 | m. 27 | n. 19 | o. 37 | p. 42 |
| q. 17 | r. 38 | s. 35 | t. 28 | u. 46 | v. 13 | w. 10 | x. 21 |

Here are some big numbers to double. It will help to think of each number as a group of tens.



Yes, in part **a.** think of **230** as **23 tens**. Then it is easy.

Double **23** and you will get **46 tens** or **460** !



1. See how quickly you can **double** all these numbers:

- | | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|
| a. 230 | b. 140 | c. 120 | d. 320 | e. 240 | f. 420 | g. 380 | h. 360 |
| i. 410 | j. 370 | k. 190 | l. 260 | m. 310 | n. 150 | o. 290 | p. 280 |
| q. 450 | r. 330 | s. 460 | t. 490 | u. 170 | v. 180 | w. 270 | x. 300 |

Think of these as hundreds. In part **a.** think of **2 400** as **24 hundreds**.



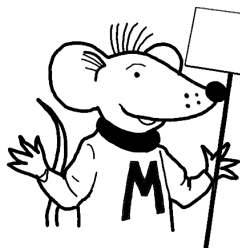
2. See how quickly you can **double** all these numbers:

- | | | | | | |
|----------|----------|----------|----------|----------|----------|
| a. 2 400 | b. 1 300 | c. 2 100 | d. 3 300 | e. 4 500 | f. 1 600 |
| g. 4 200 | h. 1 800 | i. 2 600 | j. 4 800 | k. 4 100 | l. 1 900 |
| m. 3 200 | n. 3 500 | o. 4 300 | p. 3 900 | q. 3 700 | r. 1 200 |
| s. 1 700 | t. 3 400 | u. 4 600 | v. 4 900 | w. 3 600 | x. 2 500 |

3. See how quickly you can **halve** all these numbers:

- | | | | | | |
|----------|----------|----------|----------|--------|----------|
| a. 260 | b. 48 | c. 280 | d. 4 400 | e. 160 | f. 4 800 |
| g. 8 000 | h. 460 | i. 6 600 | j. 2 800 | k. 42 | l. 44 |
| m. 224 | n. 640 | o. 480 | p. 56 | q. 78 | r. 32 |
| s. 74 | t. 4 600 | u. 462 | v. 666 | w. 360 | x. 880 |

Here are some doubling and halving questions with words.



Words? That sounds like fun!



1.

a. Double 34

b. What is twice 24 ?

c. What is twice 18 ?

d. What is one half of 46?

e. Calculate one half of 32

f. Calculate one half of 248.

g. What is a half of £156 ?

h. Halve 54

i. What is twice 46 ?

j. What is a half of 74 ?

k. What is one half of £26.80 ?

l. What is one half of £84.20 ?

2. Fill the numbers in the boxes:

a. $130 \times 2 = \square$

b. $640 \div 2 = \square$

c. $450 \times 2 = \square$

d. $\square \div 2 = 45$

e. $\square \times 2 = 462$

f. $\square /_2 = 34$

g. $210 \times 2 = \square$

h. $4\,600 \div 2 = \square$

i. $160 \times 2 = \square$

j. $\square \div 2 = 46$

k. $\square \times 2 = 240$

l. $\square /_2 = 48$

Answers

Page 4

1. a. 7 b. 9 c. 7 d. 8 e. 8 f. 8 g. 3
 h. 9 i. 9 j. 5 k. 10 l. 9 m. 9 n. 7

(In box: 24, 35, 36, 42, 80, 63)

Page 5

1. a. 7 b. 8 c. 6 d. 7 e. 9 f. 9 g. 5
 h. 6 i. 6 j. 7 k. 5 l. 6 m. 8 n. 8

(In box: 27, 49, 32, 64, 70, 48)

Page 6

1. a. 20 b. 6 c. 32 d. 35 e. 12 f. 8 g. 24
 h. 6 i. 8 j. 45
 2. a. 30 b. 7 c. 36 d. 21 e. 30 f. 9 g. 16
 h. 4 i. 5 j. 16
 3. a. 9 b. 45 c. 9 d. 5 e. 3 f. 6 g. 9
 h. 8 i. 9 j. 35

Page 7

1. a. 18 b. 26 c. 78
 d. 86 e. 150 f. £38.20

 2. a. 22 b. 62 c. 40 d. 30 e. 66 f. 90 g. 72
 h. 48 i. 36 j. 64 k. 86 l. 100 m. 54 n. 38
 o. 74 p. 84 q. 34 r. 76 s. 70 t. 56 u. 92
 v. 26 w. 20 x. 42

Answers (Contd)

Page 8

- | | | | | | |
|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1. a. 460 | b. 280 | c. 240 | d. 640 | e. 480 | f. 840 |
| g. 760 | h. 720 | i. 820 | j. 740 | k. 380 | l. 520 |
| m. 620 | n. 300 | o. 580 | p. 560 | q. 900 | r. 660 |
| s. 920 | t. 980 | u. 340 | v. 360 | w. 540 | x. 600 |
| | | | | | |
| 2. a. 4 800 | b. 2 600 | c. 4 200 | d. 6 600 | e. 9 000 | f. 3 200 |
| g. 8 400 | h. 3 600 | i. 5 200 | j. 9 600 | k. 8 200 | l. 3 800 |
| m. 6 400 | n. 7 000 | o. 8 600 | p. 7 800 | q. 7 400 | r. 2 400 |
| s. 3 400 | t. 6 800 | u. 9 200 | v. 9 800 | w. 7 200 | x. 5 000 |
| | | | | | |
| 3. a. 130 | b. 24 | c. 140 | d. 2 200 | e. 80 | f. 2 400 |
| g. 4 000 | h. 230 | i. 3 300 | j. 1 400 | k. 21 | l. 22 |
| m. 112 | n. 320 | o. 240 | p. 28 | q. 39 | r. 16 |
| s. 37 | t. 2 300 | u. 231 | v. 333 | w. 180 | x. 440 |

Page 9

- | | | | | | |
|------------------|-----------------|---------------|--------------|------------------|------------------|
| 1. a. 68 | b. 48 | c. 36 | d. 23 | e. 16 | f. 124 |
| g. £78 | h. 27 | i. 92 | j. 37 | k. £13.40 | l. £42.10 |
| | | | | | |
| 2. a. 260 | b. 320 | c. 900 | d. 90 | e. 231 | f. 68 |
| g. 420 | h. 2 300 | i. 320 | j. 92 | k. 120 | l. 96 |