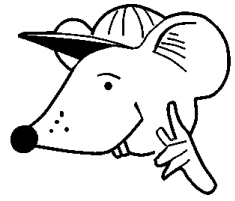


# MATHEMATICS



**N.S. Yr. 2 P.53**

**Derive doubles and halves quickly.**

## Equipment

Paper, pencil.  
Dominoes, dice etc useful.

# MathSphere

© MathSphere P.O. Box 1234 Worthing BN13 2UJ [www.mathsphere.co.uk](http://www.mathsphere.co.uk)

## Concepts

Two of the most powerful strategies that children can use in their mental arithmetic are doubling and halving.

By the end of year 2 children will be expected to know, by heart, the doubles of numbers up to ten and the corresponding halves.

As with all mental arithmetic, constant practice is essential and a variety of cards, dominoes, dice etc can help with this.

They will be expected to understand and begin to read a variety of terms associated with this, including:

*double, twice, half, halve, divide by two, divide into two.*

They should also understand that  $\frac{1}{2}$  means a half.

It will be expected that children will be able to double numbers up to 15 and halve any even number to at least 30.

Some of the easier doubles and halves of larger numbers should also be known e.g. whole tens such as double 40.

Tables will be introduced at this age range and children will be expected to know by heart multiplication and division facts for 2 and 10x tables and the beginnings of the 5x table. See separate worksheets for tables work.

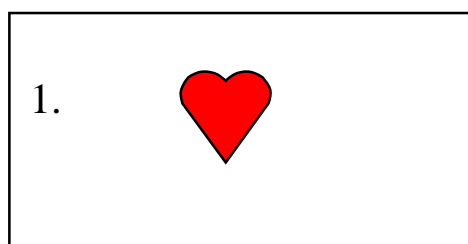
### **Doubling and halving - oral questions**

Ask questions such as those below on a frequent basis. The answers could be oral, or the child may hold up a card with the number on it.

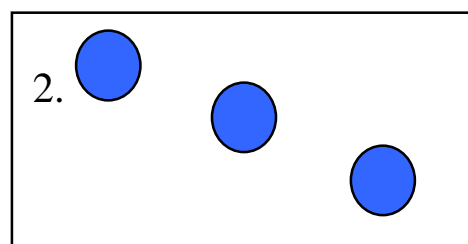
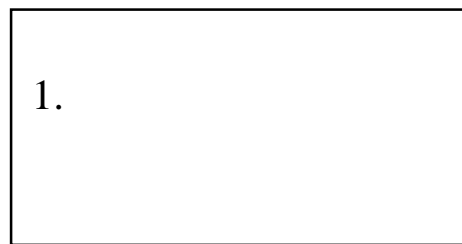
1. Double 3.
2. What are two threes?
3. One sweet cost 5p. What would two sweets cost?
4. I roll double two with dice. What is my score?
5. How many thumbs on two hands?
6. How many legs on two horses?
7. What is twice four?
8. Half of 8.
9. What is half of 10?
10. Two pens cost 20p. What would one pen cost?
11. Fred ate half of his 10 sweets. How many did he have left?
12. Halve 12.

**Doubling**

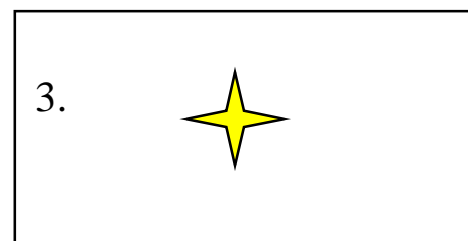
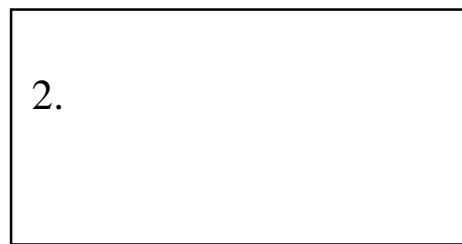
Draw **double** the number of shapes shown in the box.



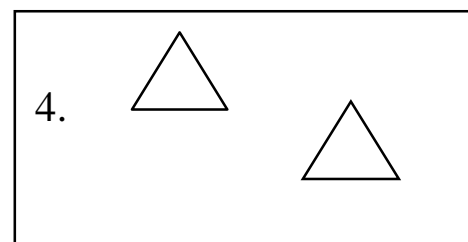
Double →



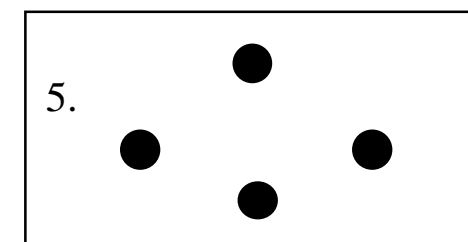
Double →



Double →



Double →

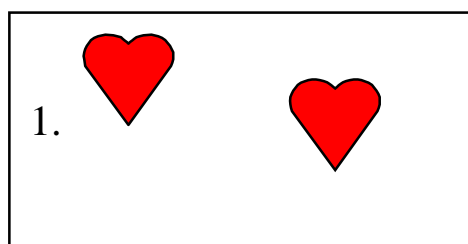


Double →



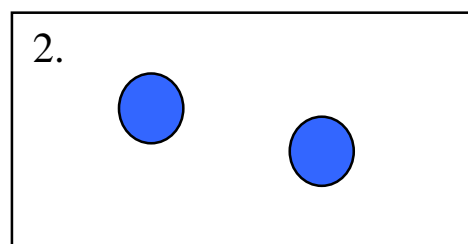
**Doubling**

Draw **double** the number of shapes shown in the box.



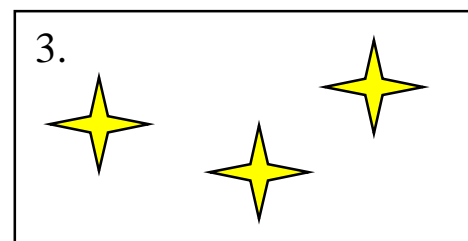
Double

1.



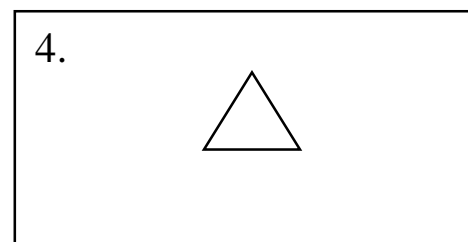
Double

2.



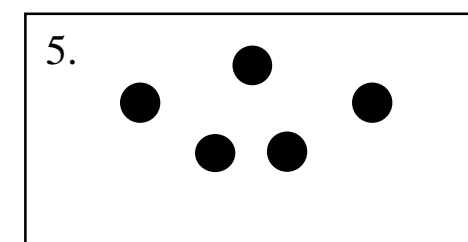
Double

3.



Double

4.



Double

5.

**Doubling**

$$1. \ 2 + 2 = \boxed{\phantom{00}}$$

$$2. \ 3 + 3 = \boxed{\phantom{00}}$$

$$3. \ 4 + 4 = \boxed{\phantom{00}}$$

$$4. \ 5 + 5 = \boxed{\phantom{00}}$$

$$5. \ 6 + 6 = \boxed{\phantom{00}}$$

$$6. \ 7 + 7 = \boxed{\phantom{00}}$$

$$7. \ 8 + 8 = \boxed{\phantom{00}}$$



Am I seeing  
double?



**Doubling**

1.  $1 + 1 =$



2.  $3 + 3 =$



3.  $5 + 5 =$

Yes! I am  
seeing  
double.

4.  $7 + 7 =$

5.  $9 + 9 =$

6.  $11 + 11 =$



Try to learn these answers.

**Doubling**

1.  $0 + 0 =$

2.  $2 + 2 =$

3.  $4 + 4 =$

4.  $6 + 6 =$

5.  $8 + 8 =$

6.  $10 + 10 =$

2 4 6 8  
10 12  
14 16  
18 20



**Try to learn these answers.**

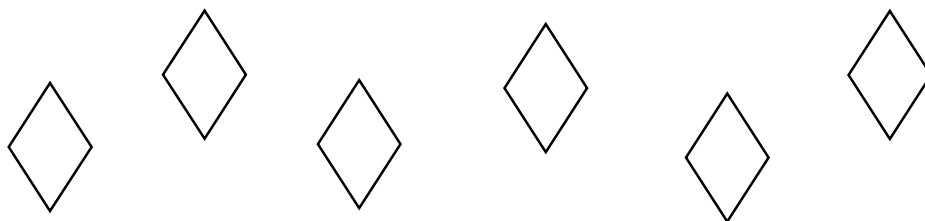


## Halving

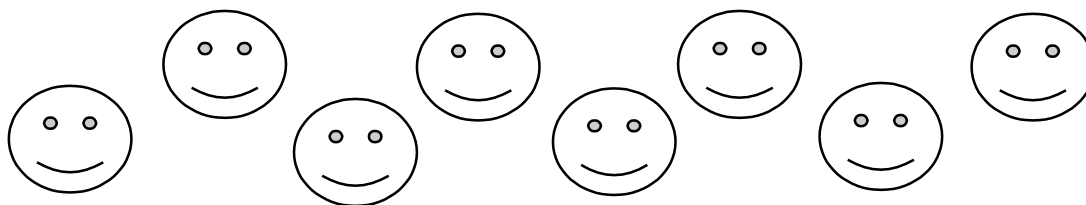


**Colour half these shapes.**

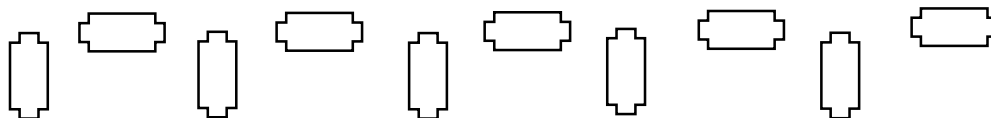
**1.**



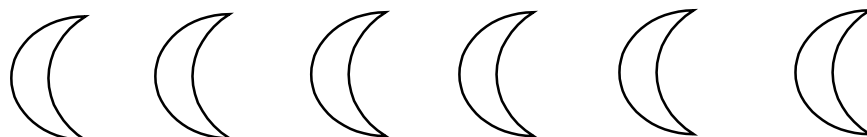
**2.**



**3.**



**4.**

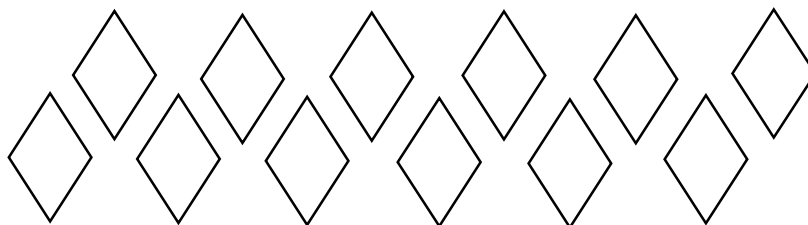


## Halving

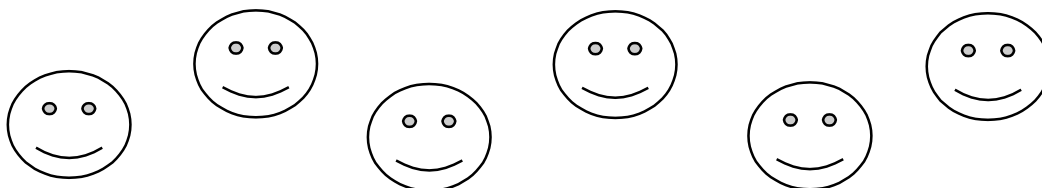


**Colour half these shapes.**

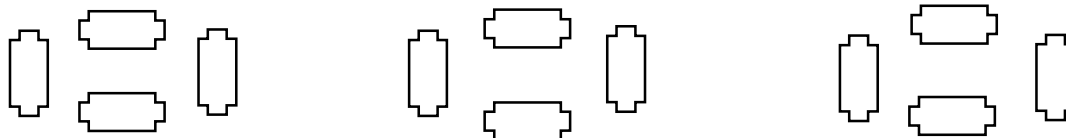
**1.**



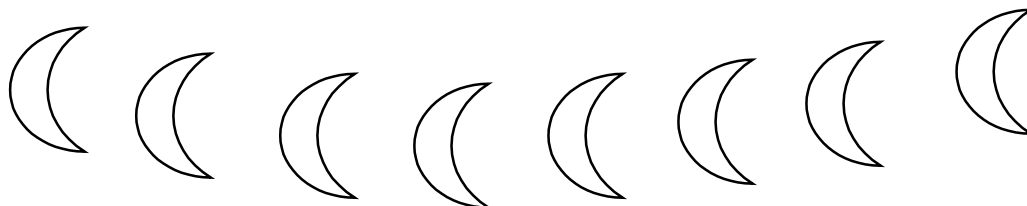
**2.**



**3.**



**4.**



Halving

1. Half of 2 =

2. Half of 6 =

3. Half of 4 =

4. Half of 10 =

5. Half of 8 =

6. Half of 14 =

0	_____
1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____
8	_____
9	_____
10	_____
11	_____
12	_____
13	_____
14	_____
15	_____
16	_____



I'm half way to being  
12 years old.

Halving

1. Half of 4 =

2. Half of 8 =

3. Half of 2 =

4. Half of 12 =

5. Half of 6 =

6. Half of 16 =

0	<input type="text"/>
1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>
6	<input type="text"/>
7	<input type="text"/>
8	<input type="text"/>
9	<input type="text"/>
10	<input type="text"/>
11	<input type="text"/>
12	<input type="text"/>
13	<input type="text"/>
14	<input type="text"/>
15	<input type="text"/>
16	<input type="text"/>



My brother is 3. He is half my age.

**Doubling and halving - harder oral questions**

Ask questions such as those below on a frequent basis. The answers could be oral, or the child may hold up a card with the number on it.

1. Double 7.
2. What are two fives?
3. One bar of chocolate cost 30p. What would two bars cost?
4. What is twice 7 ?
5. What is twice 50 ?
6. What is half of 16 ?
7.  $\frac{1}{2}$  of 18 ?
8. Jane spent half of her 80p pocket money. How much did she spend?
9. Two watches cost £40. What would one watch cost?
10. Divide 30 in half.
11. Divide 24 by two.
12. Divide 40 into two.

These type of oral questions can be constantly repeated, using the same terms with different numbers.

## Doubling

Double these numbers.  
Put the answers in the boxes.



8



14



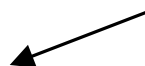
20



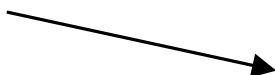
30



15

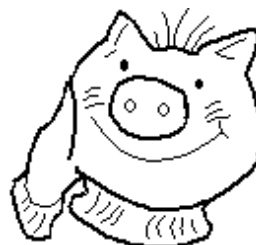


13



## Doubling

Double these numbers.  
Put the answers in the boxes.



<div>12</div>	→	<div></div>	
			<div>50</div>
		<div></div>	
<div>40</div>			<div>15</div>
↓		<div></div>	
<div></div>			<div>11</div>
		<div></div>	
<div>9</div>	↘	<div></div>	

**Doubling**

See how quickly you can do  
all these!  
Take care, don't rush.

1.  $4 + 4 =$

2.  $6 + 6 =$

3.  $5 \times 2 =$

4.  $2 \times 6 =$

5.  $6 +$    $= 12$

6.  $8 +$    $= 16$

7.  $10 +$    $= 20$

8.  $12 +$    $= 24$

9.   $\times 2 = 14$

10.   $\times 2 = 26$

11.   $\times 2 = 30$

12.   $\times 2 = 22$



**Doubling**

Try working out these sums.

1.  $5 + 5 =$

2.  $8 + 8 =$

3.  $7 \times 2 =$

4.  $2 \times 3 =$

5.  $9 +$    $= 18$

6.  $7 +$    $= 14$

7.  $20 +$    $= 40$

8.  $15 +$    $= 30$

9.   $\times 2 = 18$

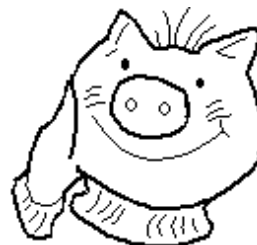
10.   $\times 2 = 28$

11.   $\times 2 = 60$

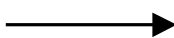
12.   $\times 2 = 24$

## Halving

Halve these numbers.  
Put the answers in the boxes.



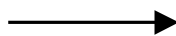
1. half of 20



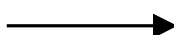
2. half of 8



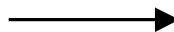
3. half of 16



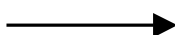
4. half of 24



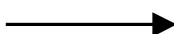
5. half of 30



6. half of 14



7. half of 28

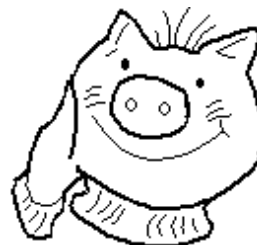


8. half of 18



## Halving

Halve these numbers.  
Put the answers in the boxes.



1. half of 22



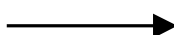
2. half of 6



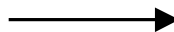
3. half of 14



4. half of 26



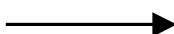
5. half of 10



6. half of 12

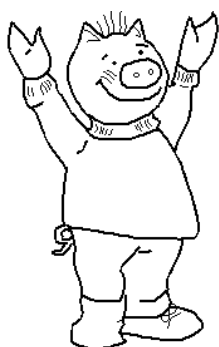


7. half of 40



8. half of 80



**Doubling and halving**

Try and work the answers  
out to all these sums.  
They are quite tricky!

1.  $12 + 12 =$

2.  $13 + 13 =$

3.  $13 \times 2 =$

4.  $2 \times 14 =$

5.  $9 \times$

$= 18$

6.  $15 \times$

$= 30$

7.  $2 \times$

$= 24$

8.  $2 \times$

$= 22$

9.  $12 \div 2 =$

10.  $16 \div 2 =$

11.  $14 \div 2 =$

12.  $40 \div 2 =$

**Doubling and halving**

Try and work the answers  
out to all these sums.  
They are quite tricky!

1.  $10 + 10 =$

2.  $15 + 15 =$

3.  $12 \times 2 =$

4.  $2 \times 11 =$

5.  $8 \times$

$= 16$

6.  $14 \times$

$= 28$

7.  $2 \times$

$= 26$

8.  $2 \times$

$= 20$

9.  $16 \div 2 =$

10.  $18 \div 2 =$

11.  $30 \div 2 =$

12.  $20 \div 2 =$

**Answers****Page 6**

1. 4      2. 6      3. 8      4. 10      5. 12      6. 14      7. 16

**Page 7**

1. 2      2. 6      3. 10      4. 14      5. 18      6. 22

**Page 8**

1. 0      2. 4      3. 8      4. 12      5. 16      6. 20

**Page 11**

1. 1      2. 3      3. 2      4. 5      5. 4      6. 7

**Page 12**

1. 2      2. 4      3. 1      4. 6      5. 3      6. 8

**Page 13**

1. 14    2. 10    3. 60p    4. 14    5. 100    6. 8    7. 9    8. 40p    9. £20    10. 15    11. 12    12. 20

**Page 14**

8 - 16      14 - 28      30 - 60      15 - 30      20 - 40      13 - 26

**Page 15**

12 - 24      50 - 100      15 - 30      11 - 22      40 - 80      9 - 18

**Page 16**

1. 8    2. 12    3. 10    4. 12    5. 6    6. 8    7. 10    8. 12    9. 7    10. 13    11. 15    12. 11

**Page 17**

1. 10    2. 16    3. 14    4. 6    5. 9    6. 7    7. 20    8. 15    9. 9    10. 14    11. 30    12. 12

**Page 18**

1. 10      2. 4      3. 8      4. 12      5. 15      6. 7      7. 14      8. 9

**Page 19**

1. 11      2. 3      3. 7      4. 13      5. 5      6. 6      7. 20      8. 40

**Page 20**

1. 24    2. 26    3. 26    4. 28    5. 2    6. 2    7. 12    8. 11    9. 6    10. 8    11. 7    12. 20

**Page 21**

1. 20    2. 30    3. 24    4. 22    5. 2    6. 2    7. 13    8. 10    9. 8    10. 9    11. 15    12. 10