



MATHEMATICS



N.S. Yr. 3 P.31

Know addition and subtraction facts

Equipment

Paper, pencil, ruler

MathSphere

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Concepts

By the end of year 3 children are expected to know all the addition and subtraction facts for numbers up to 20.

This means for example that they know for 14:

$$13 + 1 = 14$$

$$12 + 2 = 14$$

$$11 + 3 = 14$$

$$10 + 4 = 14$$

$$9 + 5 = 14$$

$$8 + 6 = 14$$

$$7 + 7 = 14$$

$$14 - 1 = 13$$

$$14 - 2 = 12$$

$$14 - 3 = 11$$

$$14 - 4 = 10$$

$$14 - 5 = 9$$

$$14 - 6 = 8$$

$$14 - 7 = 7$$

$$14 - 8 = 6$$

$$14 - 9 = 5$$

$$14 - 10 = 4$$

$$14 - 11 = 3$$

$$14 - 12 = 2$$

$$14 - 13 = 1$$

$$14 - 14 = 0$$

and the reverse:

$$1 + 13 = 14 \text{ etc}$$

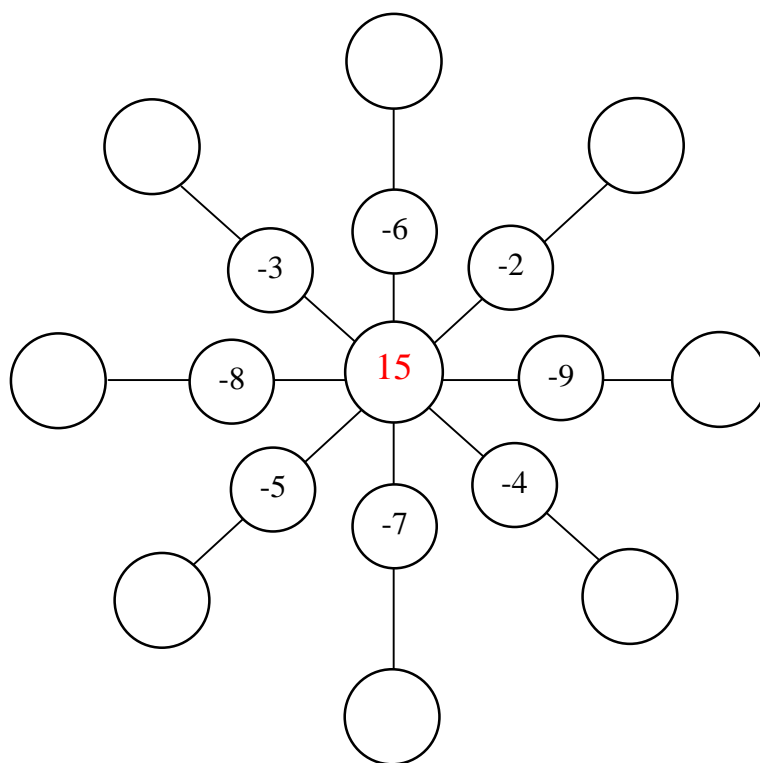
Addition by doubling is still encouraged, in year 3 doubles from $1 + 1$ up to $20 + 20$.

Pairs of multiples of 5 that make 100 should be worked out quickly eg $45 + 55$

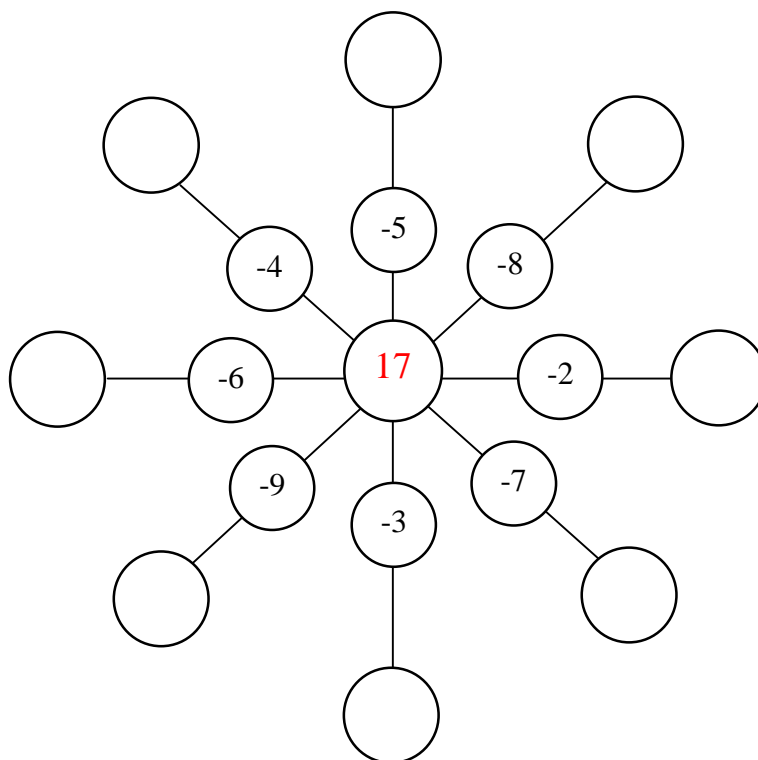
And pairs of multiples of 100 that total 1 000 eg $300 + 700$ should be known by heart.

This knowledge and quick working out will only come with constant practice, most of which will still be oral, and formal written methods of addition and subtraction should not be done until these facts are reasonably well established.

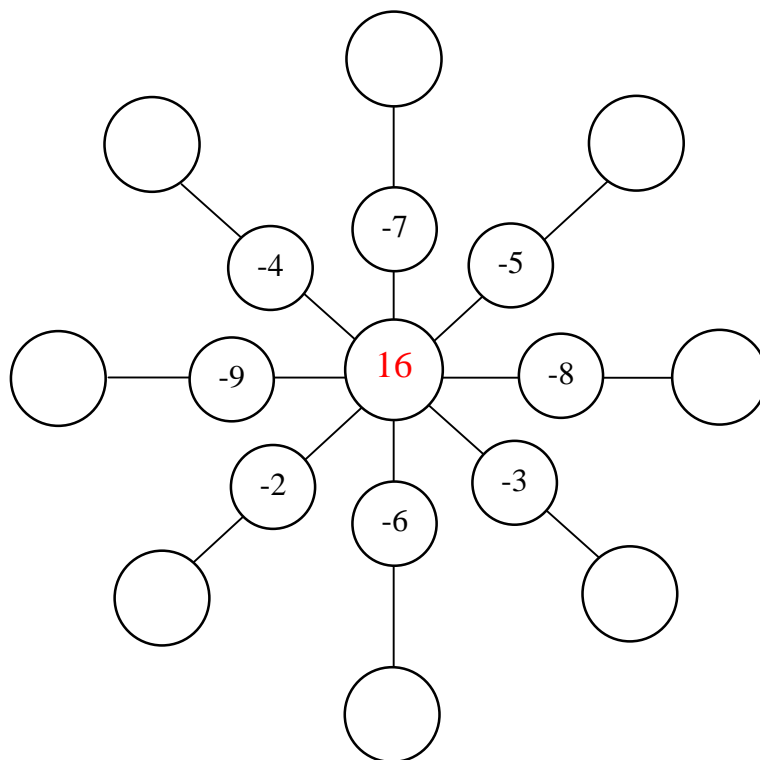
Subtract from 15



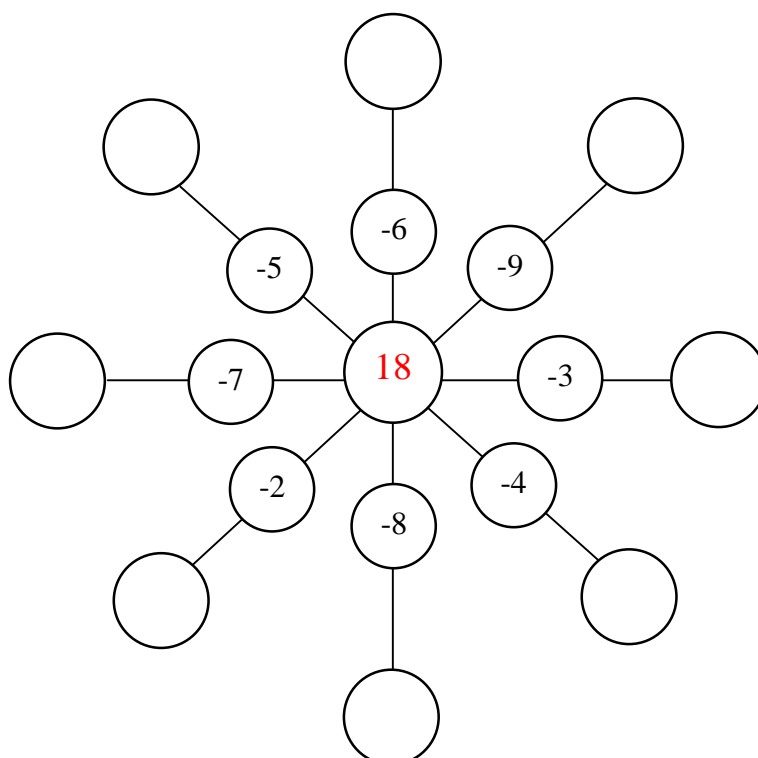
.....and now subtract from 17



Subtract from 16



...and now subtract from 18

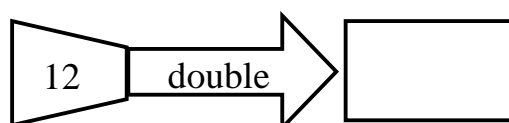
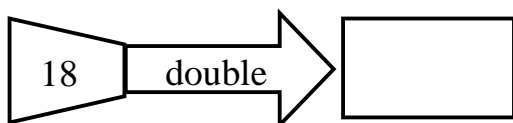


Harder doubles

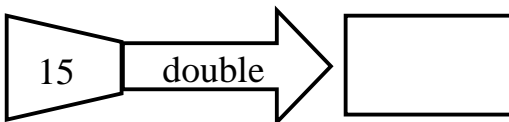
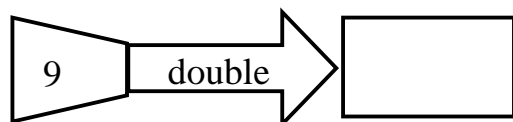


Try doubling these numbers. They are quite tricky!

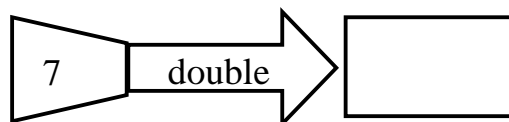
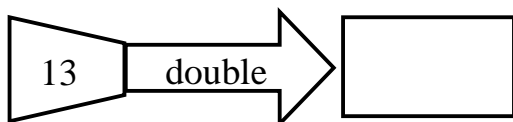
1.



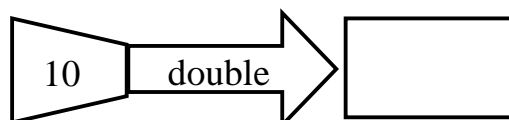
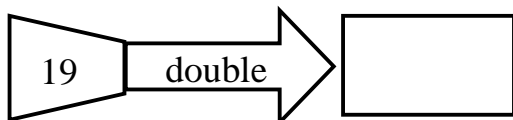
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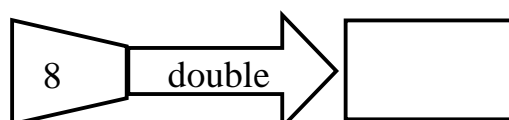
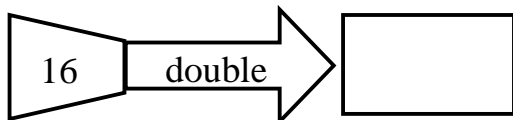
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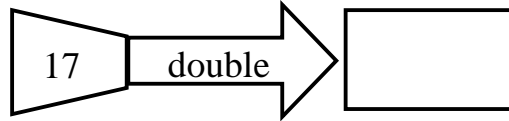
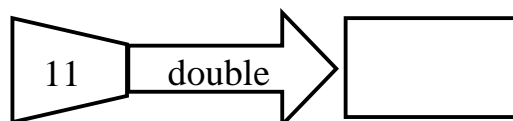
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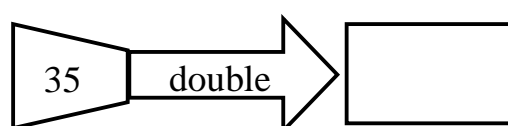
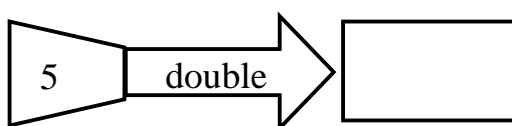
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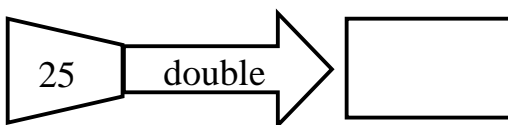
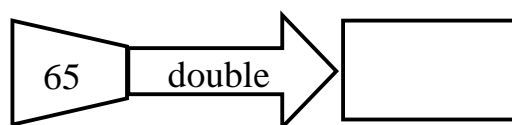
Harder doubles

Double all these
multiples of 5.

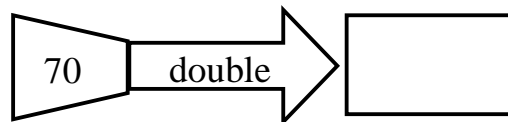
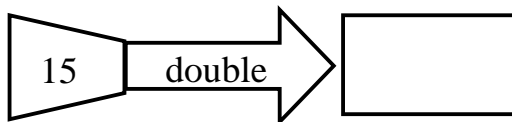
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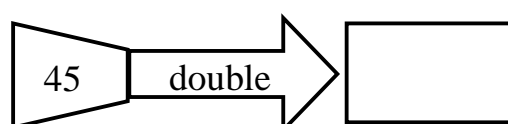
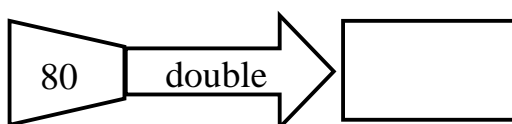
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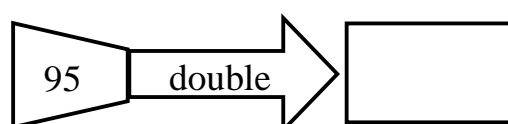
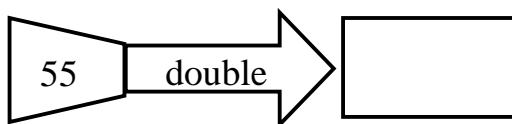
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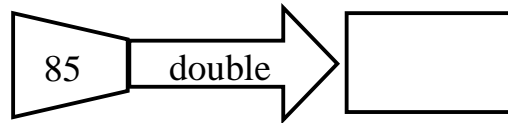
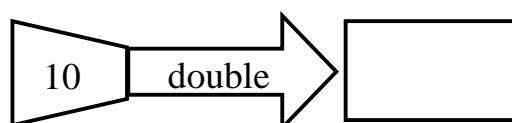
4.



5.



6.



Find the missing numbers that make these sums correct.



What did the traffic light say to the car?
Don't look now, I'm changing.

1. $15 + \square = 100$ 2. $35 + \square = 100$

3. $\square + 65 = 100$ 4. $\square + 85 = 100$

5. $75 + \square = 100$ 6. $5 + \square = 100$

7. $\square + 25 = 100$ 8. $\square + 15 = 100$

9. $45 + \square = 100$ 10. $85 + \square = 100$

11. $\square + 35 = 100$ 12. $\square + 75 = 100$

13. $25 + \square = 100$ 14. $95 + \square = 100$

Find the missing numbers that make these sums correct.



Why did the football manager flood the pitch?
So he could bring on the sub!

1. $45 + \square = 100$ 2. $65 + \square = 100$

3. $\square + 95 = 100$ 4. $\square + 15 = 100$

5. $5 + \square = 100$ 6. $35 + \square = 100$

7. $\square + 55 = 100$ 8. $\square + 45 = 100$

9. $75 + \square = 100$ 10. $15 + \square = 100$

11. $\square + 65 = 100$ 12. $\square + 5 = 100$

13. $55 + \square = 100$ 14. $25 + \square = 100$

Multiples of 5

Only use multiples of 5
to make each of these
add up to 100.



$$\square + \square = 100$$

$$\square + \square = 100$$

$$\square + \square = 100$$

$$\square + \square = 100$$

$$\square + \square = 100$$

$$\square + \square = 100$$

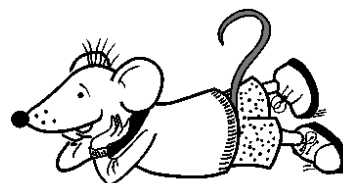
$$\square + \square = 100$$

$$\square + \square = 100$$

$$\square + \square = 100$$

$$\square + \square = 100$$

Hi! It's a really good idea to
learn all these, off by heart – it
makes maths as easy as lying
down!



Make a thousand

A thousand is a pretty big number – I wouldn't mind £1 000 to spend!

**Put numbers in the boxes to make 1 000**

1. $400 + \boxed{} = 1\,000$

2. $700 + \boxed{} = 1\,000$

3. $\boxed{} + 200 = 1\,000$

4. $\boxed{} + 500 = 1\,000$

5. $300 + \boxed{} = 1\,000$

6. $800 + \boxed{} = 1\,000$

7. $\boxed{} + 100 = 1\,000$

8. $\boxed{} + 700 = 1\,000$

9. $200 + \boxed{} = 1\,000$

10. $900 + \boxed{} = 1\,000$

11. $\boxed{} + 600 = 1\,000$

12. $\boxed{} + 400 = 1\,000$

Make a thousand

Only use whole
hundreds – how many
different ways can you
find?



$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

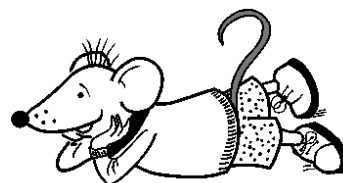
$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

$$\boxed{} + \boxed{} = 1\,000$$

Now the hard bit – can
you remember them
all?



Amazing addition action

See how good a maths champ you are by answering these as quickly as possible!

CHAMPIONSHIP 1

1. $12 + 4 =$
2. $13 + 6 =$
3. $20 - 5 =$
4. $20 - 9 =$
5. $13 + 13 =$
6. $45 + 45 =$
7. $100 - 35 =$
8. $100 - 75 =$
9. $1\ 000 - 600 =$
10. $1\ 000 - 200 =$

CHAMPIONSHIP 2

1. $14 + 5 =$
2. $12 + 7 =$
3. $20 - 8 =$
4. $20 - 3 =$
5. $14 + 14 =$
6. $55 + 55 =$
7. $100 - 15 =$
8. $100 - 95 =$
9. $1\ 000 - 400 =$
10. $1\ 000 - 800 =$

Amazing addition action

Getting quicker with these I hope – they are all very much like the earlier ones!

CHAMPIONSHIP 3

1. $15 + 5 =$
2. $16 + 4 =$
3. $20 - 1 =$
4. $20 - 6 =$
5. $12 + 12 =$
6. $65 + 65 =$
7. $100 - 25 =$
8. $100 - 55 =$
9. $1\ 000 - 900 =$
10. $1\ 000 - 300 =$

CHAMPIONSHIP 4

1. $11 + 7 =$
2. $13 + 7 =$
3. $20 - 0 =$
4. $20 - 5 =$
5. $16 + 16 =$
6. $25 + 25 =$
7. $100 - 85 =$
8. $100 - 65 =$
9. $1\ 000 - 100 =$
10. $1\ 000 - 700 =$

Amazing addition action

And a real speed by
now – remember
practice makes
perfect!

CHAMPIONSHIP 5

1. $11 + 7 =$
2. $15 + 2 =$
3. $20 - 3 =$
4. $20 - 16 =$
5. $14 + 14 =$
6. $55 + 55 =$
7. $100 - 65 =$
8. $100 - 25 =$
9. $1\ 000 - 400 =$
10. $1\ 000 - 200 =$

CHAMPIONSHIP 6

1. $12 + 8 =$
2. $13 + 5 =$
3. $20 - 7 =$
4. $20 - 15 =$
5. $17 + 1 =$
6. $35 + 35 =$
7. $100 - 75 =$
8. $100 - 95 =$
9. $1\ 000 - 800 =$
10. $1\ 000 - 500 =$

Answers**Page 3**

Clockwise from 15: 9 13 6 11 8 10 7 12

Clockwise from 17: 12 9 15 10 14 8 11 13

Page 4

Clockwise from 16: 9 11 8 13 10 14 7 12

Clockwise from 18: 12 9 15 14 10 16 11 13

Page 5

1. 36 24 2. 18 30 3. 26 14 4. 38 20 5. 32 16 6. 22 34

Page 6

1. 10 70 2. 130 50 3. 30 140 4. 160 90 5. 110 190 6. 20 170

Page 7

1. 85 2. 65 3. 35 4. 15 5. 25 6. 95 7. 75

8. 85 9. 55 10. 15 11. 65 12. 25 13. 75 14. 5

Page 8

1. 55 2. 35 3. 5 4. 85 5. 95 6. 65 7. 45

8. 55 9. 25 10. 85 11. 35 12. 95 13. 45 14. 75

Page 10

1. 600 2. 300 3. 800 4. 500 5. 700 6. 200

7. 900 8. 300 9. 800 10. 100 11. 400 12. 600

Page 12

Champ 1: 1. 16 2. 19 3. 15 4. 11 5. 26 6. 90 7. 65 8. 25 9. 400 10. 800

Champ 2: 1. 19 2. 19 3. 12 4. 17 5. 28 6. 110 7. 85 8. 5 9. 600 10. 200

Page 13

Champ 3: 1. 20 2. 20 3. 19 4. 14 5. 24 6. 130 7. 75 8. 45 9. 100 10. 700

Champ 4: 1. 18 2. 20 3. 20 4. 15 5. 32 6. 50 7. 15 8. 35 9. 900 10. 300

Page 14

Champ 5: 1. 18 2. 17 3. 17 4. 4 5. 28 6. 110 7. 35 8. 75 9. 600 10. 800

Champ 6: 1. 20 2. 18 3. 13 4. 5 5. 18 6. 70 7. 25 8. 5 9. 200 10. 500