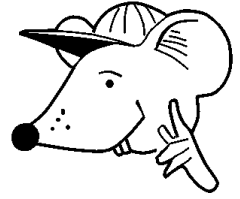# MATHEMATICS

## Y2 Addition and Subtraction
## 2230

### Know addition and subtraction facts

# Equipment

Paper, pencil, ruler
Number lines, digit cards useful

# MathSphere

# **Concepts**

Building on the addition and subtraction work up to 5 which will be covered in year 1, the next step is to extend this to addition and subtraction up to 10.

Children will be expected to know these facts and have rapid recall of them. This is the foundation of much of the maths to come.

In year 1 it is expected that pairs of numbers that add up to 10 will be learnt. In year 2 this is extended to pairs of numbers that add up to 20.

Also children are expected to know by heart pairs of whole tens (or multiples of ten) which make 100.

These facts will only be learnt if there is constant repetition of them, usually mentally. A lot can be done with digit cards or playing cards, picking pairs of numbers out.

## Adding numbers up to ten - speedy racing

Ready for some speedy work.?
Ask an adult to time you, or set you a time to
see how many you can do in a minute...or two
minutes...or three minutes or ......

| SPEEDY RACE 1 | SPEEDY RACE 2 |
|---|---|
| 1.   4 + 8 = | 1.   3 + 6 = |
| 2.   5 + 4 = | 2.   7 + 2 = |
| 3.   2 + 6 = | 3.   0 + 7 = |
| 4.   7 + 7 = | 4.   5 + 4 = |
| 5.   8 + 0 = | 5.   2 + 8 = |
| 6.   1 + 5 = | 6.   6 + 9 = |
| 7.   9 + 2 = | 7.   1 + 1 = |
| 8.   6 + 3 = | 8.   4 + 5 = |
| 9.   0 + 9 = | 9.   8 + 0 = |
| 10.   3 + 1 = | 10.   9 + 3 = |

Adding numbers up to ten - speedy racing

See if you are getting quicker today!!
It is a new day!

| SPEEDY RACE 3 | SPEEDY RACE 4 |
|---|---|
| 1.   $5 + 6 =$ | 1.   $9 + 3 =$ |
| 2.   $9 + 2 =$ | 2.   $2 + 7 =$ |
| 3.   $0 + 5 =$ | 3.   $8 + 6 =$ |
| 4.   $2 + 1 =$ | 4.   $1 + 5 =$ |
| 5.   $6 + 8 =$ | 5.   $7 + 4 =$ |
| 6.   $3 + 3 =$ | 6.   $0 + 2 =$ |
| 7.   $8 + 9 =$ | 7.   $6 + 1 =$ |
| 8.   $7 + 4 =$ | 8.   $5 + 0 =$ |
| 9.   $1 + 0 =$ | 9.   $4 + 8 =$ |
| 10.  $4 + 7 =$ | 10.  $3 + 9 =$ |

## Adding numbers up to ten - speedy racing

Faster and faster – do you know most of these by now?

| SPEEDY RACE 5 | SPEEDY RACE 6 |
|---|---|
| 1.   0 + 0 = | 1.   4 + 7 = |
| 2.   4 + 5 = | 2.   8 + 3 = |
| 3.   8 + 7 = | 3.   1 + 8 = |
| 4.   3 + 2 = | 4.   6 + 5 = |
| 5.   7 + 1 = | 5.   3 + 9 = |
| 6.   2 + 8 = | 6.   7 + 0 = |
| 7.   9 + 6 = | 7.   2 + 2 = |
| 8.   5 + 9 = | 8.   5 + 6 = |
| 9.   1 + 3 = | 9.   9 + 1 = |
| 10.  6 + 4 = | 10.  0 + 4 = |

## Subtracting numbers up to ten - speedy racing

Faster and faster – do you know most of these by now?

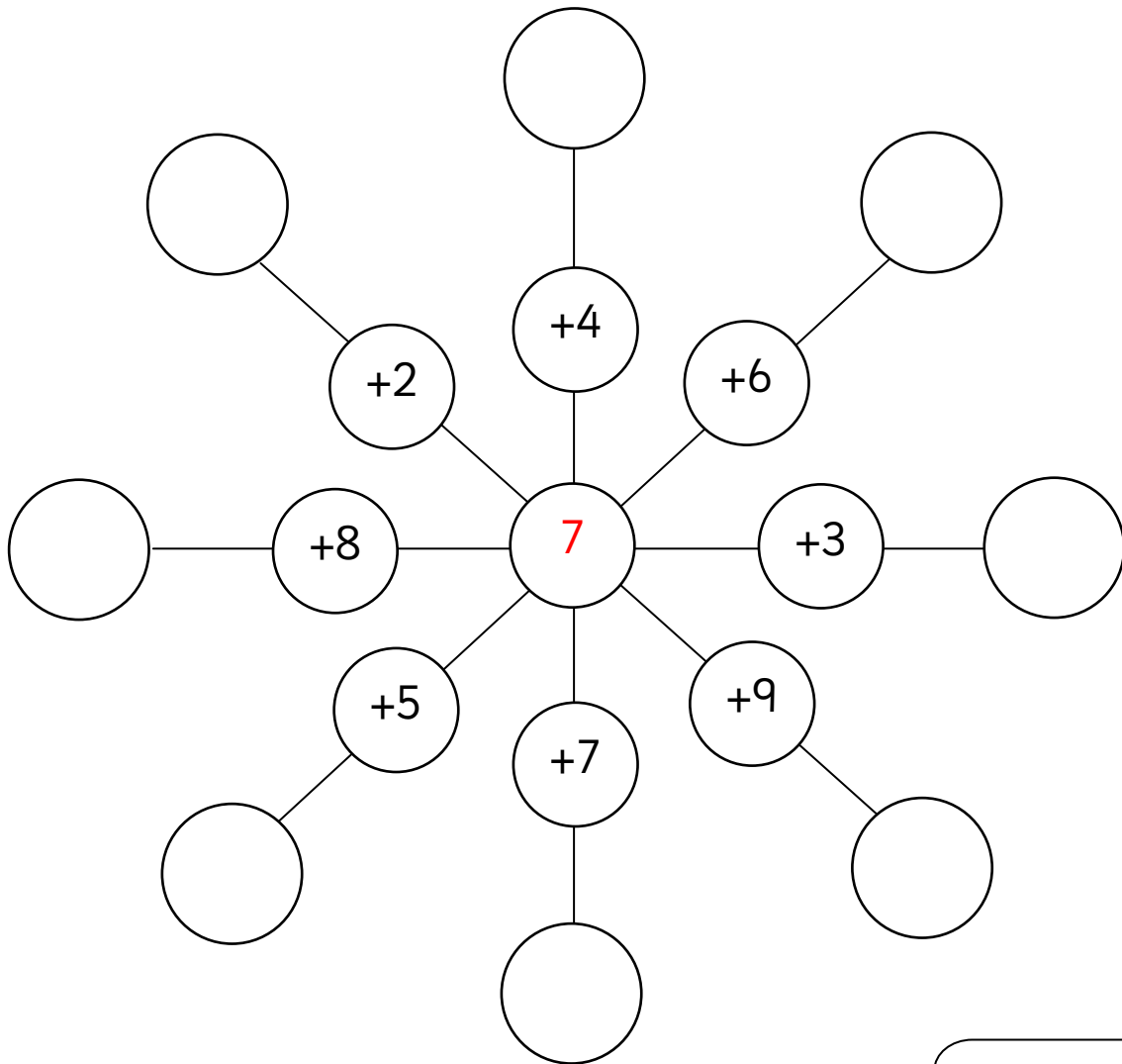| SPEEDY RACE 7 | SPEEDY RACE 8 |
|---|---|
| 1.  $4 - 1 =$ | 1.  $4 - 3 =$ |
| 2.  $6 - 5 =$ | 2.  $8 - 3 =$ |
| 3.  $8 - 3 =$ | 3.  $9 - 8 =$ |
| 4.  $5 - 2 =$ | 4.  $8 - 5 =$ |
| 5.  $7 - 4 =$ | 5.  $5 - 5 =$ |
| 6.  $4 - 4 =$ | 6.  $7 - 0 =$ |
| 7.  $9 - 6 =$ | 7.  $6 - 2 =$ |
| 8.  $9 - 5 =$ | 8.  $4 - 3 =$ |
| 9.  $5 - 3 =$ | 9.  $9 - 1 =$ |
| 10.  $7 - 4 =$ | 10.  $6 - 4 =$ |

Subtracting numbers up to ten - speedy racing

Faster and faster – do you know most of these by now?

| SPEEDY RACE 9 | SPEEDY RACE 10 |
|---|---|
| 1.   $5 - 1 =$ | 1.   $5 - 2 =$ |
| 2.   $7 - 2 =$ | 2.   $7 - 4 =$ |
| 3.   $9 - 4 =$ | 3.   $8 - 8 =$ |
| 4.   $7 - 3 =$ | 4.   $9 - 0 =$ |
| 5.   $9 - 7 =$ | 5.   $6 - 1 =$ |
| 6.   $6 - 5 =$ | 6.   $6 - 3 =$ |
| 7.   $10 - 3 =$ | 7.   $10 - 0 =$ |
| 8.   $7 - 1 =$ | 8.   $9 - 3 =$ |
| 9.   $10 - 3 =$ | 9.   $7 - 2 =$ |
| 10.   $8 - 4 =$ | 10.   $9 - 5 =$ |

## Add 7



Pairs of numbers that add up to 7:

| | |
|---|---|
| 0 + 7 = | 1 + 6 = |
| 2 + 5 = | 3 + 4 = |
| 4 + 3 = | 5 + 2 = |
| 6 + 1 = | 7 + 0 = |

Try to learn these!!

## Add 8
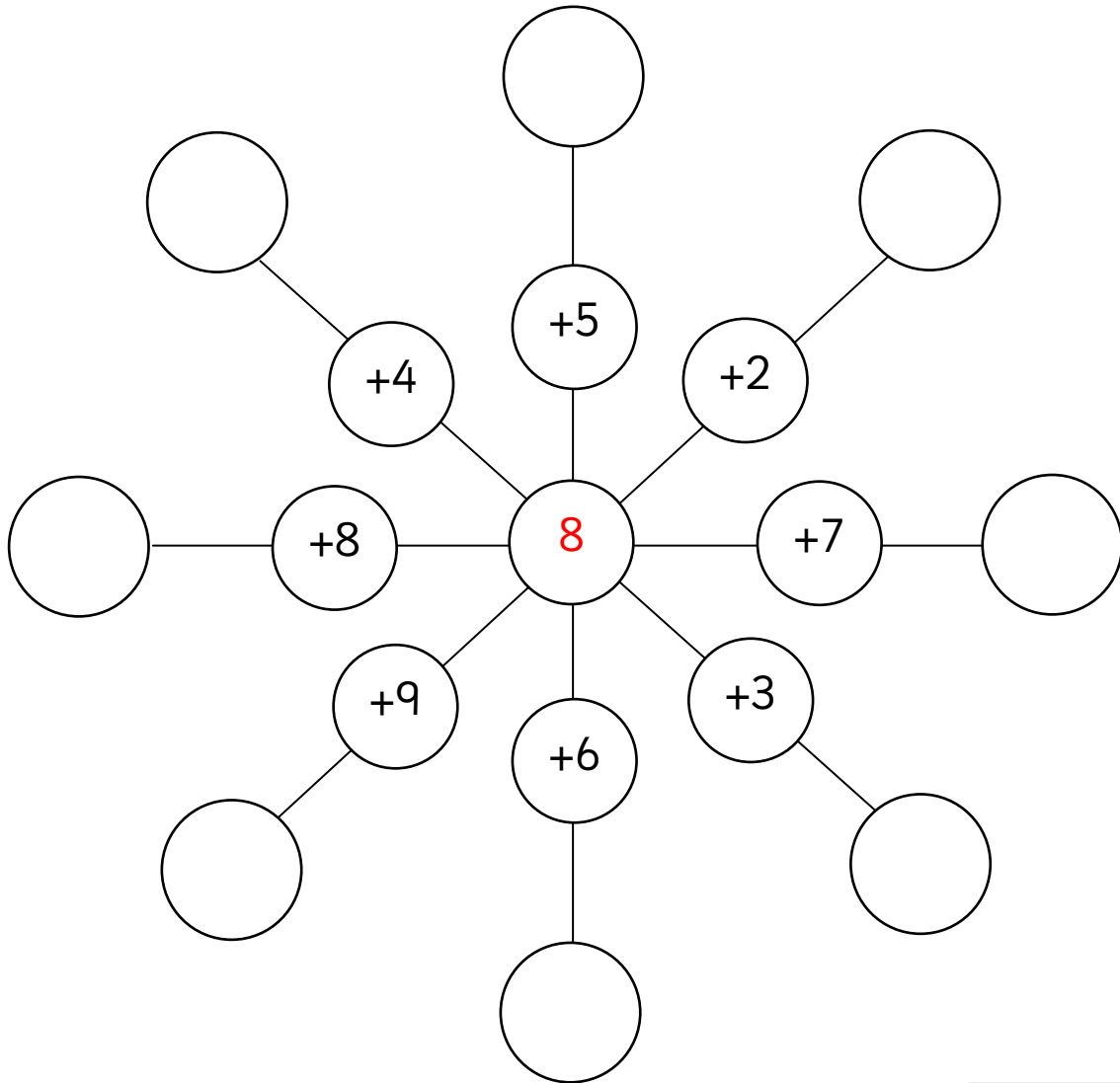


Pairs of numbers that add up to 8:

| | |
|---|---|
| 0 + 8 = | 1 + 7 = |
| 2 + 6 = | 3 + 5 = |
| 4 + 4 = | 5 + 3 = |
| 6 + 2 = | 7 + 1 = |
| 8 + 0 = | |

Try to learn these!!

## Add 9

+4

+2

+7

+9        9        +6

+3        +8

+5
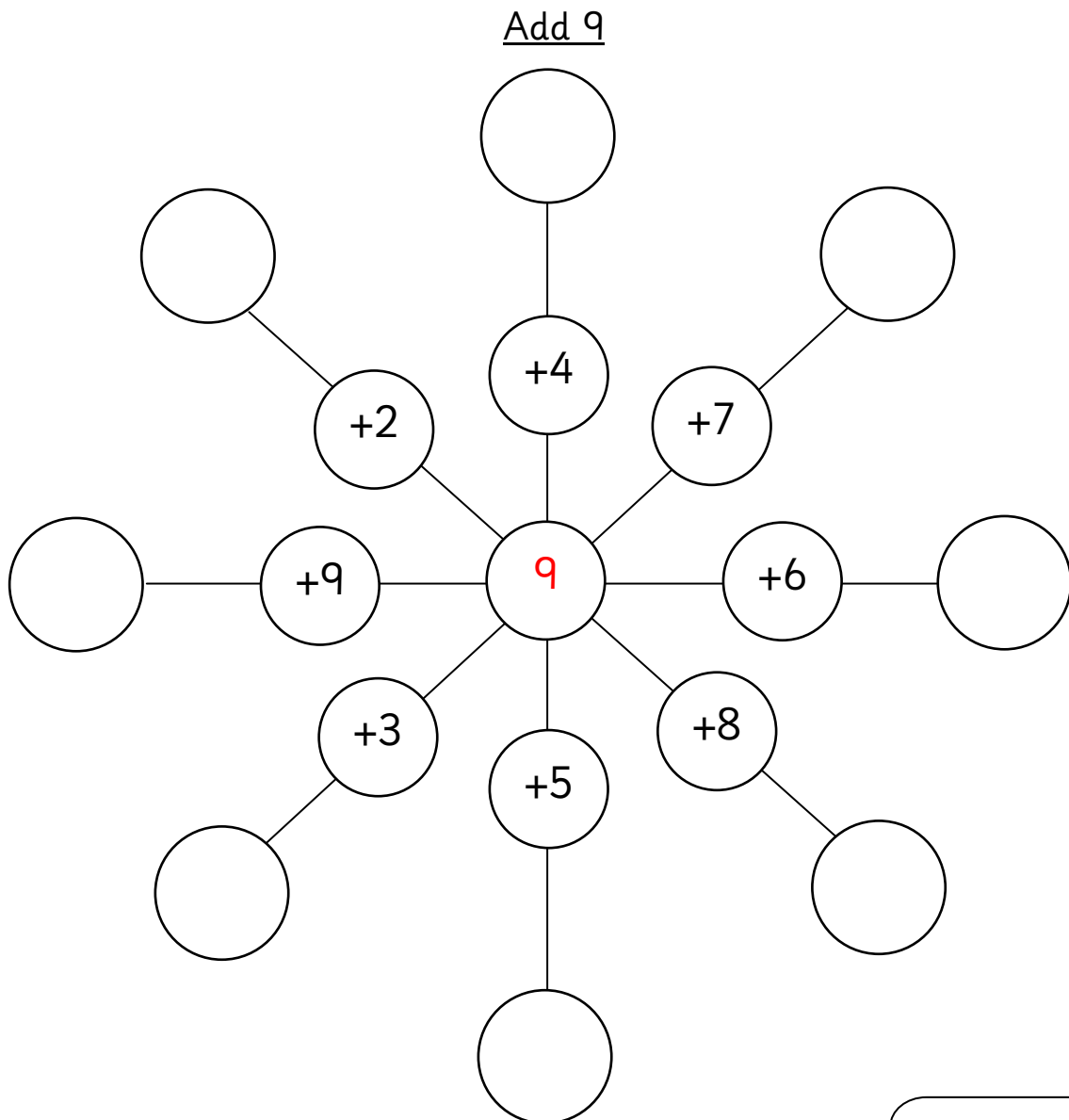
Pairs of numbers that add up to 9:

Also try to learn these!!

$0 + 9 =$                    $1 + 8 =$

$2 + 7 =$                    $3 + 6 =$

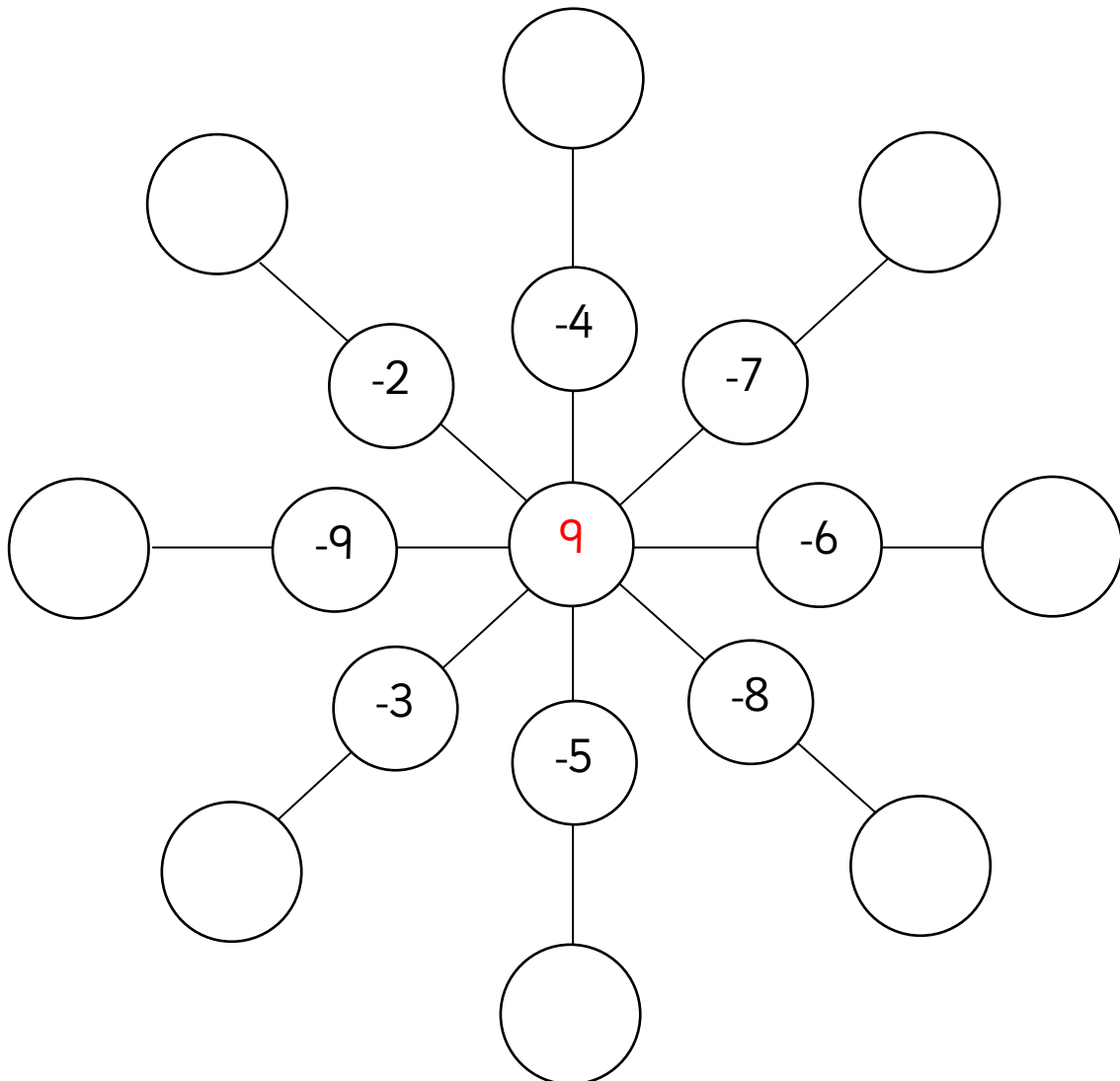$4 + 5 =$                    $5 + 4 =$

$6 + 3 =$                    $7 + 2 =$

$8 + 1 =$                    $9 + 0 =$

## Subtract from 9



Subtracting from 9:

9 - 9 =                              9 - 8 =

9 - 7 =                              9 - 6 =

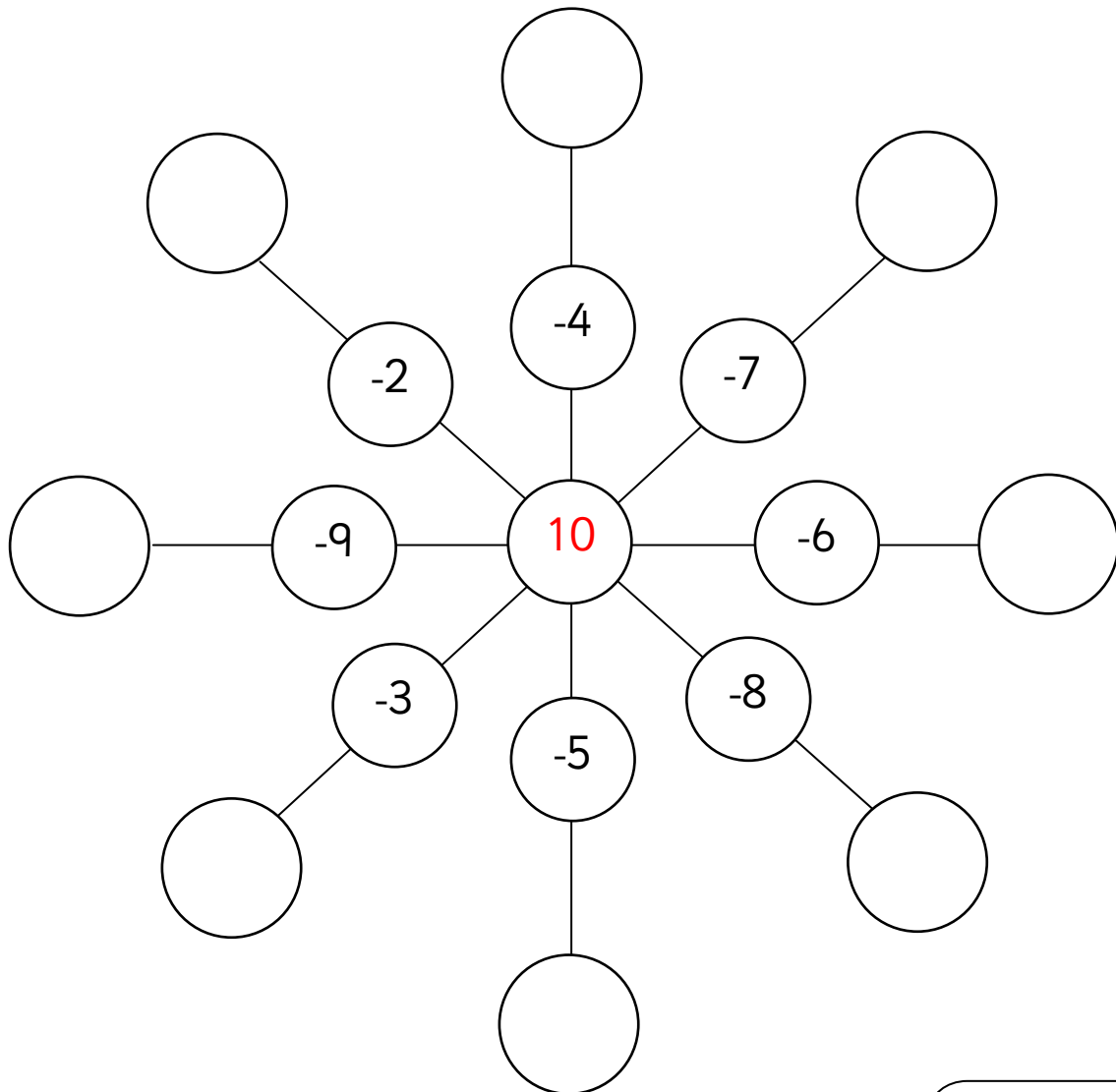9 - 5 =                              9 - 4 =

9 - 3 =                              9 - 2 =

9 - 1 =                              9 - 0 =

Also try to learn these!!

## Subtract from 10

-4

-2

-7

-9

10

-6

-3

-8

-5

Subtracting from 10:

$10 - 9 =$          $10 - 8 =$

$10 - 7 =$          $10 - 6 =$

$10 - 5 =$          $10 - 4 =$

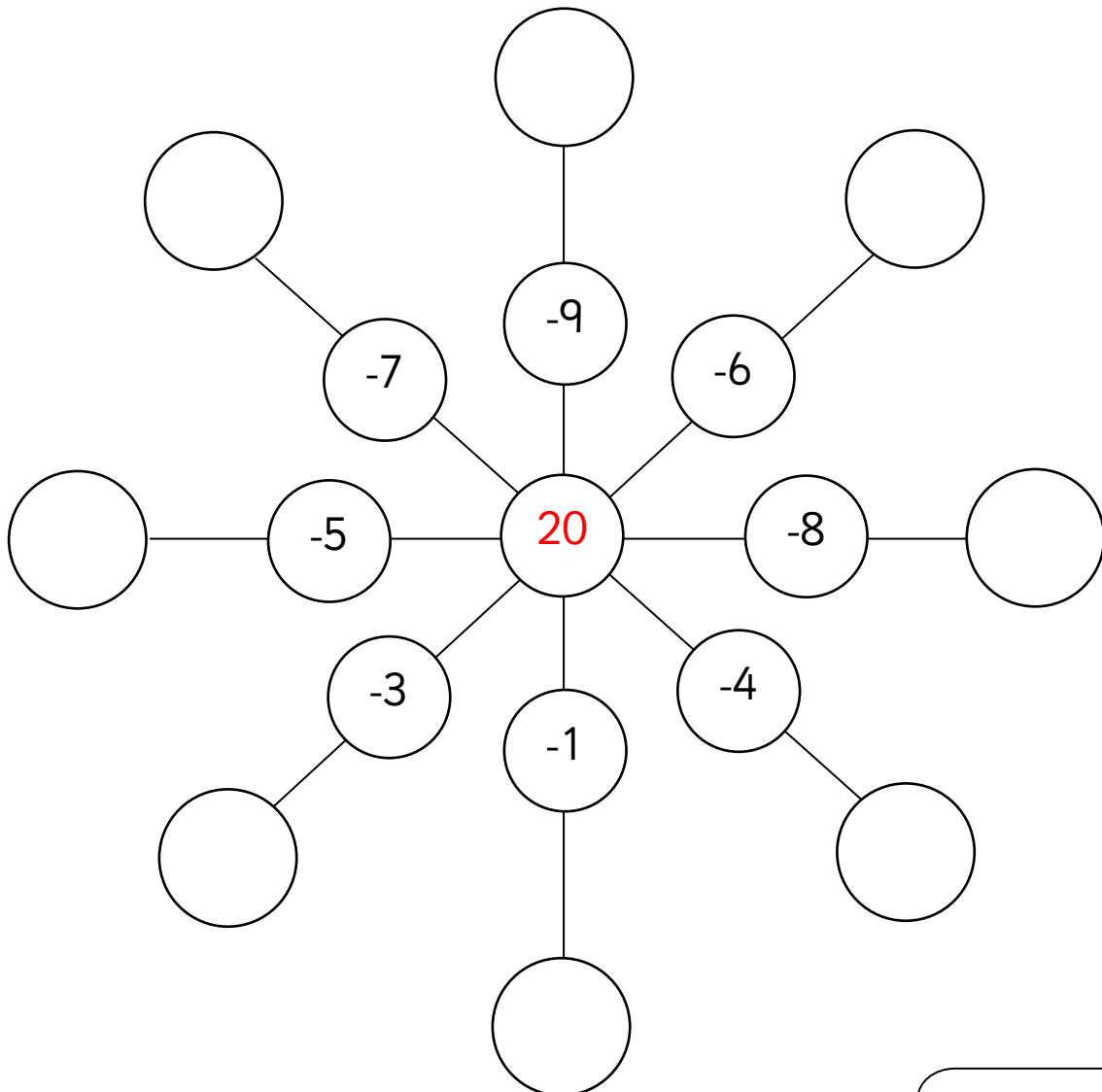$10 - 3 =$          $10 - 2 =$

$10 - 1 =$          $10 - 0 =$

Also try to learn these!!

# Subtract from 20



**Subtracting from 20:**

20 - 9 =                                    20 - 8 =

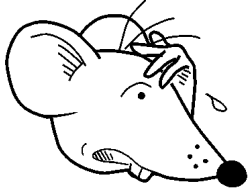20 - 7 =                                    20 - 6 =

20 - 5 =                                    20 - 4 =

20 - 3 =                                    20 - 2 =

20 - 1 =                                    20 - 0 =

Also try to learn these!!

0
1
2
3

## Pairs of numbers that total 20
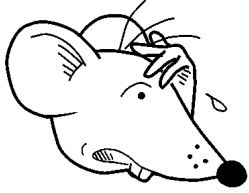
4
5
6
7

Join pairs of cards
that make twenty!
Aargh!!!!

8
9
10
11

12

15

14

12
13
14
15
16
17
18
19
20

8

6

5

7

9

11

13

Pairs of numbers that total 20

Join pairs of cards that make twenty! Aargh!!!!

8

4

12

7

16

18

9

13

11

2

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

## How many more make 20?
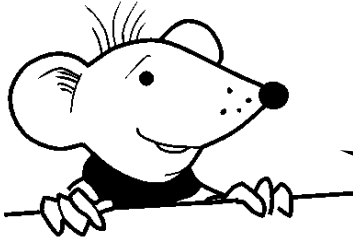
All the answers to these come to 20.
Can you find the missing numbers?

1. $8 + \boxed{\phantom{0}} = 20$
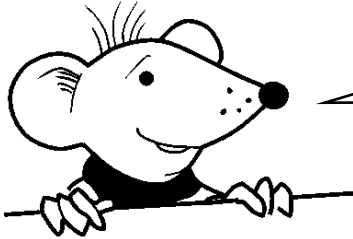
2. $15 + \boxed{\phantom{0}} = 20$

3. $\boxed{\phantom{0}} + 7 = 20$

4. $\boxed{\phantom{0}} + 14 = 20$

5. $\boxed{\phantom{0}} + 12 = 20$

6. $\boxed{\phantom{0}} + 3 = 20$

## How many more make 20?

All the answers to these come to 20.
Can you find the missing numbers?

1. $\boxed{10}$ + $\boxed{\phantom{0}}$ = $\boxed{20}$

2. $\boxed{16}$ + $\boxed{\phantom{0}}$ = $\boxed{20}$

3. $\boxed{\phantom{0}}$ + $\boxed{5}$ = $\boxed{20}$

4. $\boxed{\phantom{0}}$ + $\boxed{18}$ = $\boxed{20}$

5. $\boxed{\phantom{0}}$ + $\boxed{11}$ = $\boxed{20}$

6. $\boxed{\phantom{0}}$ + $\boxed{4}$ = $\boxed{20}$

Making 20

How many ways can you make the answers come to 20?

⬡ + ⬡ = 20

⬡ + ⬡ = 20

⬡ + ⬡ = 20

⬡ + ⬡ = 20

⬡ + ⬡ = 20

⬡ + ⬡ = 20

⬡ + ⬡ = 20

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## Pairs of numbers that total 100

10
20
30
40
50
60
70
80
90
100

Join pairs of cards
that make 100!
Yes!!!!

| 10 | 40 | 80 |

| 70 | 20 | 50 |

30

| 90 | 60 | 50 |

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Pairs of numbers that total 100

Join pairs of cards that make 100! Yes!!!!

10
20
30
40
50
60
70
80
90
100

40

50

60

80

30

70

20

50

90

10

# Total 100

```
|_____|
0   10   20   30   40   50   60   70   80   90   100
```
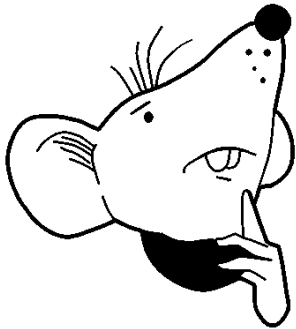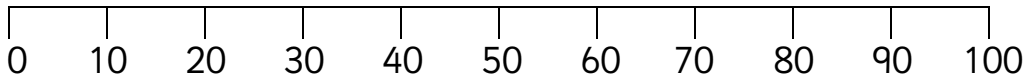
Which pairs of  whole tens will make 100?

◯ + ◯ = 100         ◯ + ◯ = 100

◯ + ◯ = 100         ◯ + ◯ = 100

◯ + ◯ = 100         ◯ + ◯ = 100

◯ + ◯ = 100         ◯ + ◯ = 100

◯ + ◯ = 100         ◯ + ◯ = 100

**Is it possible to find ten different ways?**

# Answers

| **Page 3** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Race 1: | **1.** 12 | **2.** 9 | **3.** 8 | **4.** 14 | **5.** 8 | **6.** 6 | **7.** 11 | **8.** 9 | **9.** 9 | **10.** 4 |
| Race 2: | **1.** 9 | **2.** 9 | **3.** 7 | **4.** 9 | **5.** 10 | **6.** 15 | **7.** 2 | **8.** 9 | **9.** 8 | **10.** 12 |

| **Page 4** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Race 3: | **1.** 11 | **2.** 11 | **3.** 5 | **4.** 3 | **5.** 14 | **6.** 6 | **7.** 17 | **8.** 11 | **9.** 1 | **10.** 11 |
| Race 4: | **1.** 12 | **2.** 9 | **3.** 14 | **4.** 6 | **5.** 11 | **6.** 2 | **7.** 7 | **8.** 5 | **9.** 12 | **10.** 12 |

| **Page 5** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Race 5: | **1.** 0 | **2.** 9 | **3.** 15 | **4.** 5 | **5.** 8 | **6.** 10 | **7.** 15 | **8.** 14 | **9.** 4 | **10.** 10 |
| Race 6: | **1.** 11 | **2.** 11 | **3.** 9 | **4.** 11 | **5.** 12 | **6.** 7 | **7.** 4 | **8.** 11 | **9.** 10 | **10.** 4 |

| **Page 6** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Race 7: | **1.** 3 | **2.** 1 | **3.** 5 | **4.** 3 | **5.** 3 | **6.** 0 | **7.** 3 | **8.** 4 | **9.** 2 | **10.** 3 |
| Race 8: | **1.** 1 | **2.** 5 | **3.** 1 | **4.** 3 | **5.** 0 | **6.** 7 | **7.** 4 | **8.** 1 | **9.** 8 | **10.** 2 |

| **Page 7** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Race 9: | **1.** 4 | **2.** 5 | **3.** 5 | **4.** 4 | **5.** 2 | **6.** 1 | **7.** 7 | **8.** 6 | **9.** 7 | **10.** 4 |
| Race 10: | **1.** 3 | **2.** 3 | **3.** 0 | **4.** 9 | **5.** 5 | **6.** 3 | **7.** 10 | **8.** 6 | **9.** 5 | **10.** 4 |

**Page 8**
Clockwise:   11   13   10   16   14   12   15   9

**Page 9**
Clockwise:   13   10   15   11   14   17   16   12

**Page 10**
Clockwise:   13   16   15   17   14   12   18   11

**Page 11**
Clockwise:   5   2   3   1   4   6   0   7

**Page 12**
Clockwise:   6   3   4   2   5   7   1   8

**Page 13**
Clockwise:   11   14   12   16   19   17   15   13

**Page 16**
**1.** 12   **2.** 5   **3.** 13   **4.** 6   **5.** 8   **6.** 17

**Page 17**
**1.** 10   **2.** 4   **3.** 15   **4.** 2   **5.** 9   **6.** 16