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Skill Level Entry 2

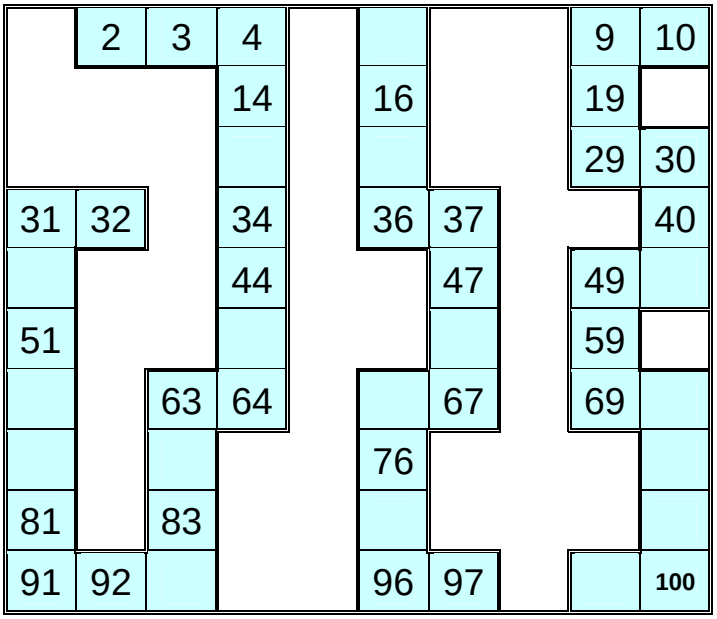
N1 E2.3, E2.4

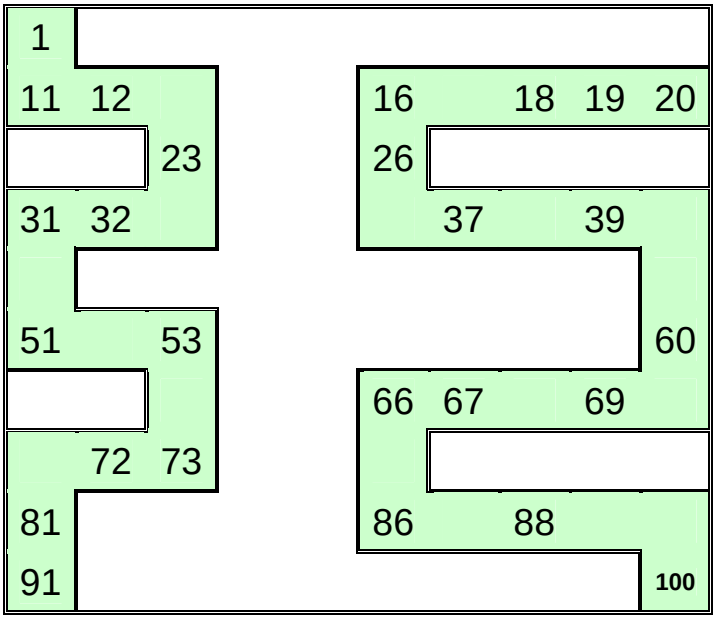
Worksheets and task sheets

This resource kindly contributed by Mrs Jennifer Whitehead, Grimsby Institute of Further and Higher Education
N1/E2.3 Add & subtract two-digit whole nos. N1/E2.4 Recall addition / subtraction facts to 10. Understand that (a) there are different strategies to help with mental addition / subtraction (b) subtraction is the inverse of addition (c) how to align numbers for column addition

Number snakes (warm up activity)

These following snakes have been cut out of a 100 square. Some of the numbers have been cut out. Fill in the missing numbers.





For more practice, enter the following address into the address bar of Internet Explorer: http://www.primarygames.co.uk/pg2/splat/splatre100.html

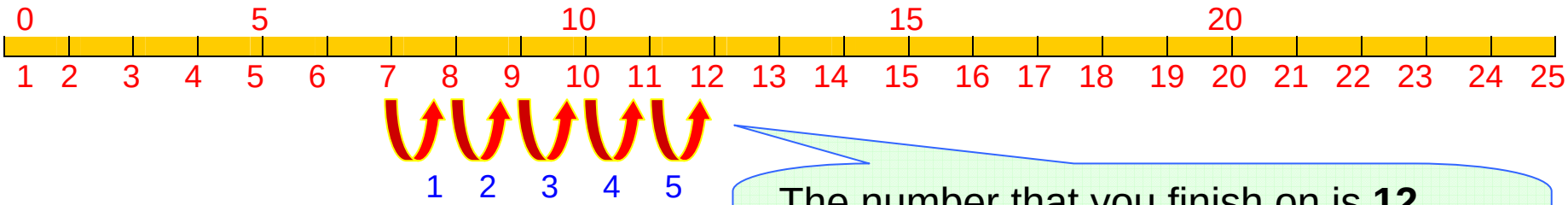
HOW to add using a number line.

To add with a number line, start with the biggest number and count on the smaller number.

This is how to do it...

Start from the 7, here. The sum is **7 + 5** so now count on 5 places.

7 + 5 = ?



The number that you finish on is **12**.
This is your answer. **7 + 5 = 12**

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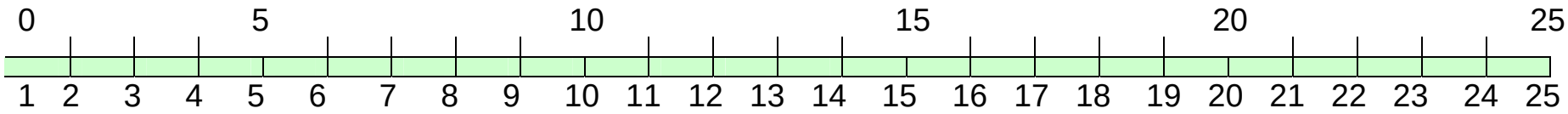
Addition sums.

Answer the questions using the number line.

For each question, draw on the steps you have taken to get from one number to another in a pen of the same colour.



1. **3 + 7 = ...**

2. **8 + 6 = ...**

3. **5 + 9 = ...**

4. **4 + 5 = ...**

5. **7 + 4 = ...**

6. **2 + 6 = ...**

7. **5 + 7 = ...**

8. **8 + 4 = ...**

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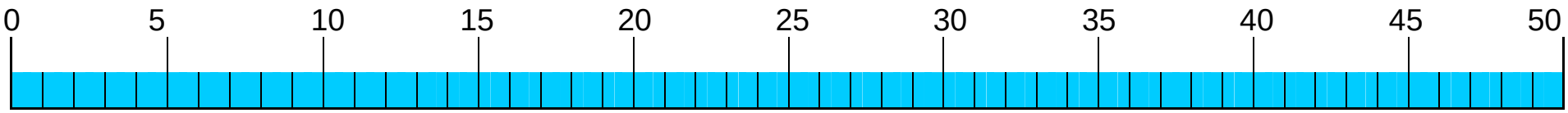
More addition sums.

Use the number line to help you.



1. 12 + 5 + 8 + 2 = ...

2. 4 + 9 + 3 = ...

3. 4 + 6 + 3 + 2 = ...

4. 3 + 5 + 8 = ...

5. 2 + 11 + 30 + 3 = ...

6. 21 + 17 = ...

7. 27 + 13 = ...

8. 9 + 17 = ...

You can use your ruler when you don't have a number line.

If you use the millimetres side, this goes up in tens, and there are 300 dashes, so there will be very few sums that you cannot solve.

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What exactly is subtraction?

This might seem like an easy question, but a lot of people find it hard to do take-away sums because they count downwards (e.g. 19, 18, 17, 16...), and it's easy to miss out numbers this way.

It's a lot easier to count upwards than downwards (e.g. 16, 17, 18, 19...), especially if you want to count up to a large numbers and will be going up and down in tens or twos.

You don't have to make life hard for yourself. Imagine the sum 17 - 9 = ?
Instead of starting from 17 and counting downwards to 9, start at 9, and count upwards on your fingers from the next number up

10, 11, 12, 13, 14, 15, 16, 17...

Now add up the fingers you have held up. This is your answer. Practise counting up on your fingers (or on a number line or a ruler) to complete the subtraction sums.

to subtract using a number line.

Addition and subtraction are opposites.

40 + 12 = 52 **12 + 40 = 52** **52 - 12 = 40** **52 - 40 = 12**

When you subtract a number from another number, what you are really trying to do is find the difference between the numbers, or what was added on at first.

So **50 – 12 = ?** is just another way of saying **? + 12 = 50**

You can solve this using a number line.

In the sum 50 – 12 = ?

to find the answer, start with 12, and count how many steps you make until you reach 50.

You will have jumped forward **38 steps**. This is your answer.

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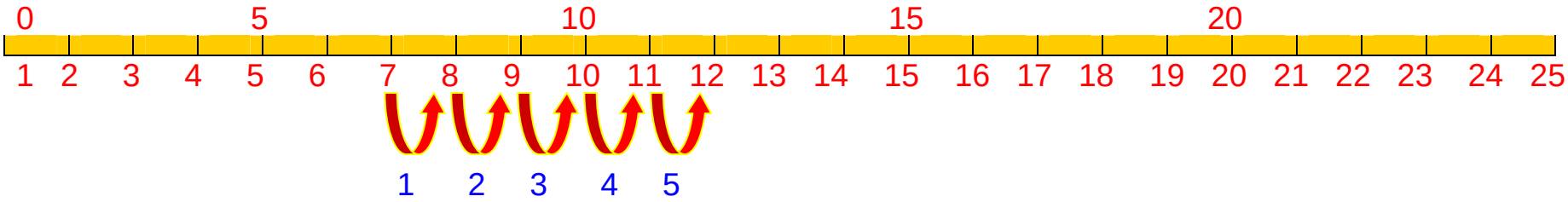
Subtraction sums

This is the sum **12 – 7 = ?**

To find the answer for this sum, you start at the lowest number, 7, and count up to 12.

You will have jumped 5 steps, so the answer is 5.



Now try these sums:

1. 12 - 5 = ... **2. 25 - 13= .....** **3. 22 - 17= .....**

4. 19 - 13 = ... **5. 21 - 12= .....** **6. 18 - 11 = ...**

6. 25 - ..... = 13 **7. 17 - ..... = 12** **8. 13 + ... = 19**

9. 11 + ... = 17 **10. 2 + ... = 17** **11. 7 - ..... = 1**

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Answer the following subtraction questions:

42 – 10=	53 – 7 =	94 – 3 =	43 – 8 =
54 – 7 =	64 – 2 =	43 – 9 =	32 – 4 =
67 – 5 =	87 – 10 =	69 – 6 =	63 – 8 =
21 – 10 =	46 – 7 =	46 – 6 =	42 – 5 =
54 – 7 =	34 – 10 =	42 – 9 =	67 – 10 =
67 – 2 =	95 – 10 =	43 – 2 =	83 – 10 =
78 – 9 =	36 – 10 =	34 – 7 =	43 – 10 =

Making sums

For each of the next 11 questions, rearranging each set of numbers to create four different sums.

The only condition is that the sums have to work, and give the right answers.

Example: 7, 8, +, -, =, 15.

You can make the following sums from these numbers:

7+8=15 **8+7=15** **15-7=8**

15-8=7 **15=8+7** **15=7+8**

7=15-8 **8=15-7**

I can make 8 different sums from these three numbers.

7+8=15 and 15-8=7 mean the same thing – that the difference between 15 and 7 is 8, or that the difference between 15 and 8 is 7.

So addition and subtraction can be used to say the same thing in a different way.

Now try the next exercise, making 8 sums from each set of numbers and symbols you are given, in the same way as the example.

You could check your sums with a calculator.

Making sums

Example: 3, 2, 5,+, -, =.		a. 2, 8, 10, +, -, =		b. 4,6,10, -, +, =.	
3+2=5	2+3=5				
5=2+3	5=3+2				
5-3=2	5-2=3				
2=5-3	3+5-2				
c. 3, 7, 10, -, +, =.		d. 1, 9, 10, +, -, =.		e. 5, 5, 10, -,+,=.	

f. 1, 19, 20, =, -, +.		g. 16, 4, 20, -, +, =.		h. 13, 7, 20, -, +, =.	
i. 15, 20, 5, -, +, =.		j. 2, 18, 20, -, +, =.		k. =, 11, 20, +, -, 9.	

Function machine

The machine is incomplete.

Follow the instructions in the top row to fill in the gaps.

-10		-1		START		+1		+10
8	←		←	19	→		→	30
	←	11	←	12	→		→	
	←		←	43	→		→	
	←		←	25	→	26	→	
65	←		←	76	→		→	
	←	31	←	32	→		→	
	←		←	67	→		→	78

Number line patterns

Find the pattern in the number lines and write down the rule.

Example:

21	20	30	29	39	38	48

Rule = Subtract 1, add 10.

22	32	42	52	62	72	82

1. Rule = ……..

57	56	46	45	35	34	24

2. Rule = ……..

61	71	70	80	81	91	92

3. Rule = ……..

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