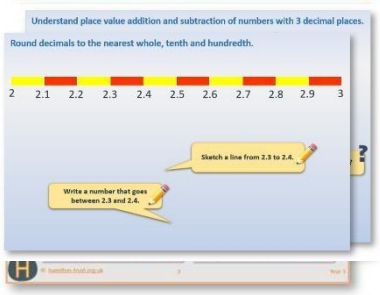
Year 4 Maths Week 11
(06.07.20)
Solving number puzzles

1. Start by reading through the **Learning Reminders**.



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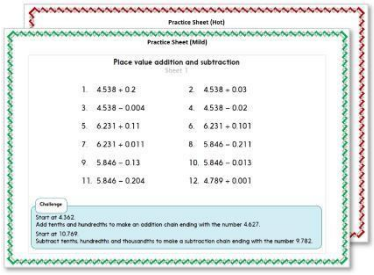
2. Think you've got it? Have a go at the **Number Puzzles.**



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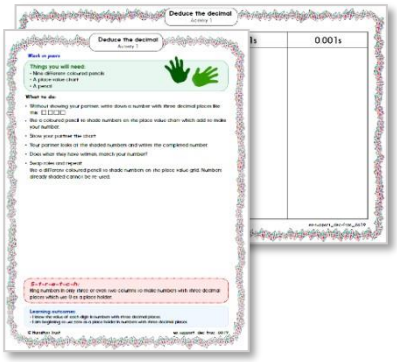
3. Have I mastered the topic? A few questions to **Check your understanding.**



Learning Reminders

Solving number puzzles.

In mathematics an **inverse operation** is an **operation** that **undoes** what was done by a **previous operation.**

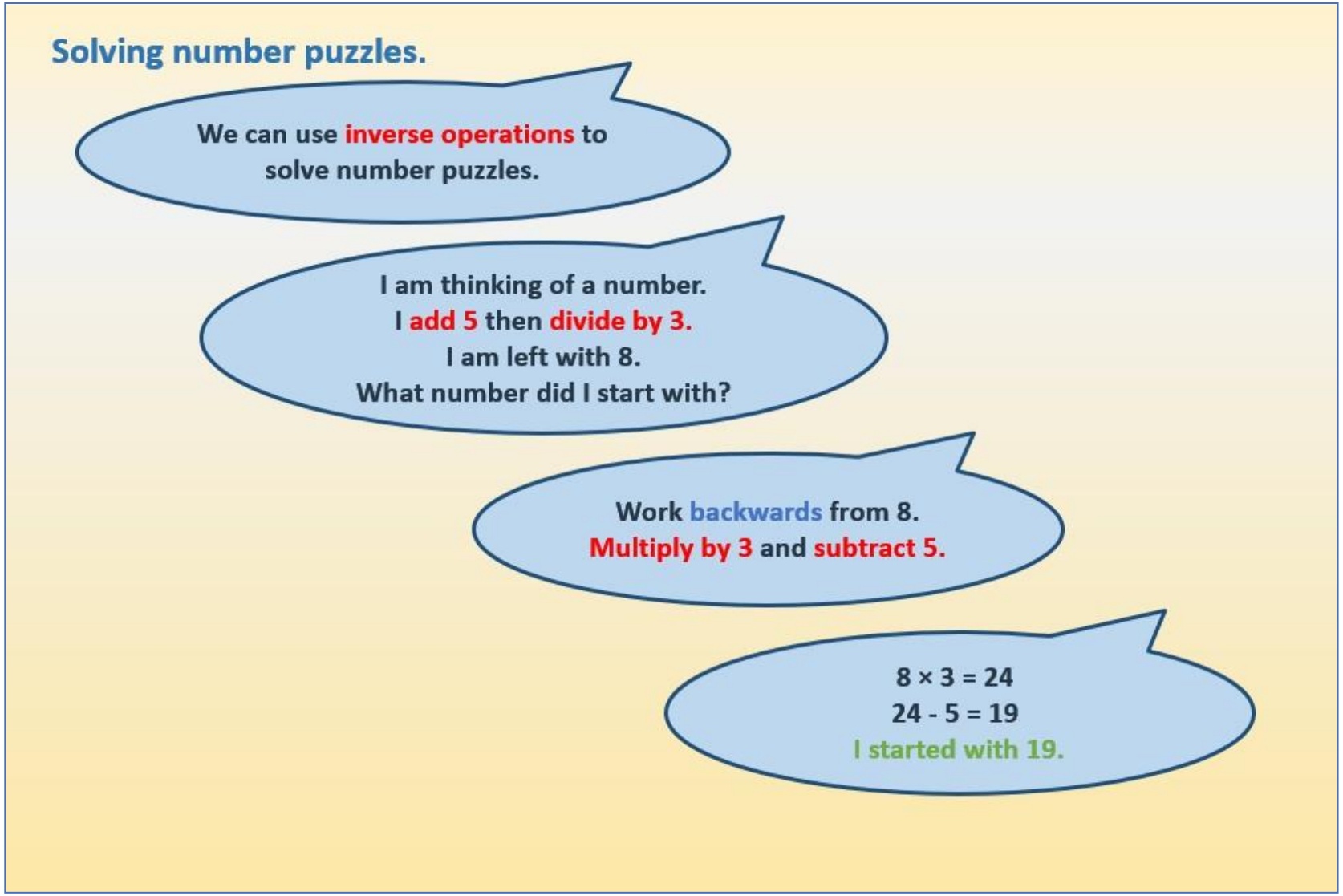
Addition and subtraction are inverse operations.

e.g. 26 + 13 = 39
39 - 13 = 26

Multiplication and division are inverse operations.

e.g. 7 × 4 = 28
28 ÷ 4 = 7

Learning Reminders



Solving number puzzles

Solve these problems.
They all involve 'guessing' the number that Cat is thinking of!

1. Halving my number then subtracting 3 leaves 5. What is my number?	2. I double my number and add 4. The answer is 14. What is my number?
3. I'm thinking of a number. I multiply my number by 3 and add 4. My answer is 25. What is my number?	4. Multiplying my number by 10, then subtracting 4 leaves 26. What is my number?
5. If you add 4 to my number and then divide it by 2 you get 9. What is my number?	6. If I multiply my number by 5 and subtract 5 then multiply the result by 5, the answer is 75. What is my number?

Now try this:

- Think of any number (write it down so you don't forget it).
- Double the number.
- Add 9.
- Subtract 3.
- Divide by 2.
- Subtract the number you started with.

Repeat for several different starting numbers.
What happens each time?
Use inverse operations to investigate why this happens.

Answers 1. 16, 2. 5, 3. 7, 4. 3, 5. 14, 6. 6.

Check your understanding

Questions

Use inverse operations to check the answers to these questions.

Which are correct? Write the correct answer for any that are wrong…

1. 463 - 182 = 281

2. 72 ÷ 8 = 9

3. 134 - 40 = 84

4. 23 × 10 = 230

5. 463 + 102 = 573

6. 23 + 41 + 32 = 96

7. 81 ÷ 9 = 7

8. 7 × 5 = 35

Fold here to hide answers

Check your understanding

Answers

1, 2, 4, 6 and 8 are correct.

3. Should be 94.

5. Should be 565.

7. Should be 9.