Worksheet: Algorithms

Algorithms are step-by-step instructions that computers or other IT systems work with. Computers follow these instructions to complete a task, detailing each step.
An example: what do I do to go to school in the morning?

1. Stand up
2. have a shower
3. Hear the school bell
4. Packing the school bag
5. Have breakfast
6. Go to the train
7. Get off at the correct stop
8. Go to the school building
9. Go to the right classroom.
10. Learn carefully

Exercise 1: Is this description complete? What steps do you need to add? Could you find your way to school by following these instructions?

Task 2: Imagine you want to get dressed in the morning to go to school. What does the step-by-step instruction look like?

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

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Exercise 3: Write out the algorithmic process from the following facts:
When the lesson begins and the teacher has entered the class, all students stand up to greet the teacher. After the teacher has also greeted the students, the students can sit down. The hour begins. Today the topic is geometry and the students unpack their set square and rulers to draw a triangle. The teacher specifies the length and height of the triangle. They are 4 cm long and 5 cm high. All students work well.

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

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Task 4: Many such algorithmic processes can be found in everyday life. Think of examples for yourself and briefly present them to the class.

Problem: What problem can you think of that you could solve with an algorithm? Briefly describe it.

Now write down step by step how to solve the problem.

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

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