🏠 Course / Part 3: Shortest Paths, Min-Heaps, Algorithmic Complexity / 3. Algorithm complexity

Practice questions: Algorithm complexity

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What have you learnt so far?

3/3 points (ungraded)
1. The complexity of an algorithm is a measure of the

- 🔘 maximum
- ⚪ minimum
- ⚪ average

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number of elementary operations that are needed for its execution, as a function of the size of the input.

2. The big-O notation (or asymptotical behavior) lets us drop

- ⚪ constants and low-order terms because they are too difficult to calculate precisely
- ⚪ the mic
- 🔘 constants and low-order terms because they do not matter when the problem size becomes large enough

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3. The complexity of the BFS algorithm is

- 🔘 $\mathcal{O}(|E|)$, where E is the set of edges of the graph
- ⚪ $\mathcal{O}(|V|)$, where V is the set of vertices of the graph
- ⚪ $\mathcal{O}(|V \cdot E|)$, where V is the set of vertices, and E is the set of edges of the graph

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ℹ️ Answers are displayed within the problem

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