

Name:

Search Algorithms – Guess the Number Puzzle

Use the key learning slides to help answer these questions

1

(a) What is the name of the search algorithm used in the Guess the Number puzzle? (2 words)

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(b) What is the minimum number of guesses you need to guess the number in the range 1–20?

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(c) What is the maximum number of guesses you need to get the number in the range 1–20?

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(d) What feedback does the other player need to give you for the algorithm to work?

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(e) Describe the steps you would take to guess the number 19.

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(f) Which would be quickest to guess: 7 or 20? Why?

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(g) How many guesses do you need to guess a number between 1 and 100?

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(h) How many guesses do you need to guess a number between 1 and 1000?

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2

(a) Explain how this algorithm makes finding numbers **efficient**.

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(b) Is this algorithm always the quickest way to guess the number? Explain your answer.

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(c) In order for the algorithm to work the numbers need to be sorted in order. Why is this important?

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