

Part 6

You are going to read a magazine article about a painting created by a computer. Six sentences have been removed from the article. Choose from the sentences **A–G** the one which fits each gap (37–42). There is one extra sentence which you do not need to use.

Mark your answers on the separate answer sheet.

A computer-generated painting

Born in Amsterdam in 1606, Rembrandt Harmenszoon van Rijn is one of the world's most renowned artists. The prolific painter was famous for his portraits and was admired for his ability to capture realistic emotions. Unfortunately, like many artists of his time, Rembrandt's talents were not recognised during his lifetime. The artist died penniless in 1669, after suffering many years of hardship.

Interestingly, a painting unveiled in Holland in 2016 has made headlines around the world because it looks as if it was painted by the famous 17th-century Dutch artist. **37** It is, in fact, a brand new painting that uses technology to mimic his technique so perfectly that it could easily be mistaken for one created by the great artist himself.

The clever forgery, called the 'Next Rembrandt', took 18 months to complete and is the result of a collaboration between computer experts and art experts. The team collected data from the Dutch artist's 346 known paintings to help them imitate as closely as possible his technique, choice of colour, structure, texture and topic. They used facial recognition software and a unique computer programme to analyse the individual features of his style. **38**

The computer needed as much data as possible to enable it to mimic the artist's work accurately. Rembrandt painted a large number of portraits, many of which were of men with moustaches wearing black suits with white collars. **39**

They decided that the 'Next Rembrandt' would be a portrait of a white male between 30 and 40 years old, wearing black clothes, a white collar and a hat.

40 The special software system that the team had designed gathered information about Rembrandt's style based on his use of geometry, the way he placed the objects and people in relation to one another in his paintings and his choice of paint colours. The data was used to generate the facial features for the 'Next Rembrandt'.

The individual elements were put together to form the face and the chest in the same proportions as the original paintings created by the Dutch artist. **41** When this had been done, a 3D printer was used to bring the 'Next Rembrandt' to life. Comprising 148 million pixels and 13 layers of ultra-violet ink, the 'painting' is a clever forgery that looks exactly like an original Rembrandt, at least to the untrained eye.

The goal of the project was to start a discussion about how data and technology could become an essential part of the art world. The project was not universally popular, and did receive some criticism. **42** Their aim was to ensure that the 'Next Rembrandt' would be a masterpiece, one that even the famous Dutch artist would be proud of, and they seem to have succeeded.

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| <p>A However, many art historians, including Rembrandt experts, were incredibly supportive.</p> <p>B Once the subject had been determined, the next stage of the process could begin.</p> <p>C These included details like painting strokes, the artist's preferred angle and so on.</p> <p>D As a result, they actually considered giving up on it at this point.</p> | <p>E The team then used technology to add depth and texture to their image.</p> <p>F The authentic-looking masterpiece is not the work of Rembrandt, though.</p> <p>G For this reason, the team settled on creating something similar.</p> |
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