Question 1

A single search on Google takes 0.3 watt-hours of electricity. This is about the same amount of electricity it takes to power a digital clock for one hour.

How much more electricity does it take to do the same search on an AI platform?

A. Nearly five times more

B. Nearly ten times more

C. Nearly 20 times more

Question 2

AI can generate images based on descriptions it is given.

True or false? It takes as much energy to create one AI-generated image as it does to charge a smartphone's battery to 50%.

A. True

B. False

Question 3

Data centres that run AI systems use powerful computers that can overheat. Water is used to cool the systems and stop this from happening.

If you sent one email per week using AI, how much water would be needed to cool the system?

A. 12 litres (the same amount as 12 water bottles)

B. 23 litres (the same amount as 23 water bottles)

C. 27 litres (the same amount as 27 water bottles)

1L

Question 4

AI needs technology (like computers) to work harder. This leads them to wear out more quickly and causes more electronic waste.

By 2030, AI is predicted to create _____ of tonnes of electronic waste.

A. Hundreds

B. Thousands

C. Millions

Question 5

Building and training AI systems uses a lot of energy, which produces greenhouse-gas emissions that speed up climate change.

Training just one AI model can release over 285,000 kilograms of carbon dioxide, which is almost five times the amount that the average _____ produces in its lifetime.

A. Car

B. Plane

C. Human

Answers

1

B = A search using AI takes 2.9 watt-hours of electricity, which is **nearly 10 times** as much as a Google search.

2

A = True. For some models, it takes as much energy to create one AI-generated image as it does to charge a smartphone's battery to 50%.

3

C = Water is used to cool systems down and prevent overheating. To send one email a week for a year using AI, it would require **27 litres** of water.

Answers

4

C = AI needs technology like computers to work harder, which wears them out more quickly. AI is getting more popular so scientists predict that by the end of the decade there could be **millions** of tonnes of electronic waste.

5

A = Like humans, machines need to continually learn. Training just one AI model can release over 285,000 kilograms of carbon dioxide, which is almost five times what the average **car** pumps out in its lifetime.

How did you do?

Which answers surprised you the most?