Lees bij de volgende teksten steeds eerst de vraag voordat je de tekst zelf raadpleegt.

Tekst 13

How much carbon dioxide does *your* computer emit?

1 AVIATION has long been blamed for its share of global warming caused by humans. Indeed, some travellers now ask themselves whether their flight is strictly necessary and, if they decide it is, ease their consciences by paying for the planting of trees. These, so they hope, will absorb the equivalent of their sinful emissions. But you, dear reader, indulge regularly in an activity that is just as polluting as air travel: using a computer.

2 According to a report published by the Climate Group, a think tank based in London, computers, printers and mobile phones accounted for the emission of 830m tonnes of carbon dioxide around the world in 2007. That is about 2% of the estimated total of emissions from human activity. And that is the same as the aviation industry's contribution. According to the report, about a quarter of the emissions in question are generated by the manufacture of computers and so forth. The remaining three quarters come from their use.

3 Yet computing can also be used to tackle climate change. For example, domestic consumption could be cut by the large-scale employment of smart meters in houses and flats. Households are the biggest users of electricity after manufacturing and transport. In Britain, they accounted for 29% of consumption in 2004, according to a government report.

4 Small and medium-sized businesses, meanwhile, could save electricity by switching to distributed computing, rather than running their own servers. The delivery of computer services over the internet, from vast warehouses of shared machines, enables firms to hand over the running of their e-mail, customer databases and accounting systems to someone else. Companies that do so use computers more efficiently and thus reduce not only their costs but also their carbon footprints.

5 Another way to improve the situation is virtualisation — the creation of "virtual" machines — so that multiple operating systems and programs can run on the same computer. Sun Microsystems, a maker of servers, reckons that 70% of the servers in most organisations have only one program running on them. Running these applications on fewer and fewer machines, by virtualisation, would be more efficient and thus greener.

6 Ironically, of course, environmental research itself relies heavily on computers. So, perhaps the best thing the home user can do is donate his inefficiencies to the cause by signing up to climateprediction.net, which uses the idle capacity of home computers to test the accuracy of various computer models of the climate.

www.economist.com, 2009

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Tekst 13 How much carbon dioxide does *your* computer emit?

1p **45** Worden er in de tekst methodes/mogelijkheden genoemd om de uitstoot van kooldioxide te verminderen door computers in te zetten?
Zo nee, antwoord "Nee". Zo ja, noteer het nummer van de alinea waarin dit voor het eerst aan de orde komt.