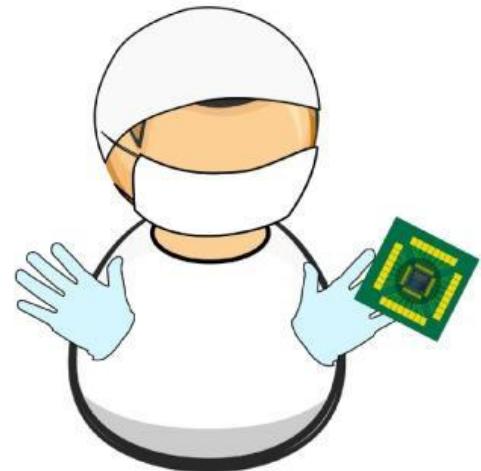


IBM has created a new computer chip that will **improve performance** by 50%. 50 billion **transistors** can be placed on a 2nm chip the size of a fingernail. Up to now IBM, has produced 7nm chips. More transistors, the basic parts of computer chips, lead to better performance.

In addition, the new chip uses up to 75% less energy. This will **increase** the battery life of cell phones dramatically. The chip is also expected to **boost** performance in **huge datacentres** that need a lot of power. Faster graphic cards and **speedier object detection** on cameras are other **effects** of the new chip. **Artificial intelligence**, which **relies heavily** on computing power, would profit massively from a new generation of chips.



Even though computer experts are excited about the new **development**, it will take a few years before the new chip can be **mass-produced**. This comes at a time when a **shortage** of computer chips has **hit** major **manufacturing** areas, including the automobile industry and smartphone production.

For years IBM has been **concentrating** on chip development and sold its chip production in 2014.

Words

- **artificial intelligence** = the way computers do intelligent things that people can do, like thinking and making decisions
- **boost** = increase, make better
- **concentrate** = focus on
- **datacentre** = large building with many computers
- **development** = making a new product
- **effects** = results
- **even though** = while
- **heavily** = a lot
- **hit** = affect
- **huge** = very large
- **improve** = to make better
- **increase** = improve, to make better
- **in addition** = also
- **manufacturing** = production
- **mass-produced** = to make something cheaply in large numbers
- **nanometre** = **nm** = one billionth of a metre
- **object detection** = the way you find and identify an object or person
- **performance** = how well something works
- **rely on** = need
- **shortage** = not enough
- **speedier** = faster
- **transistor** = a very small object that controls the flow of electricity

Answer the following questions.

1. By which factor will IBM's new computer chip improve performance? _____
2. How large is the new IBM chip? _____
3. How will the new chip affect the battery life of cell phones? _____
4. Name at least two other areas that will profit from the new chip? _____
5. When can the new chip be produced for commercial use? _____
6. Which manufacturing sectors are suffering from a shortage of computer chips? _____
7. What is IBM concentrating on instead of producing chips? _____

Match the sentence beginnings with the endings. There are TWO endings you will not need.

1	IBM's new chip can
2	In addition to more power
3	Graphic cards and detecting objects
4	Mass production of the new chip
5	The car industry and smartphone production
6	The development of computer chips

A	will take a few years to achieve
B	is IBM's main area of business
C	improve performance by 50%
D	are areas where the new chip can be used.
E	will start within the next few years
F	the chip also uses less energy
G	work with fewer transistors
H	are suffering from a shortage of computer chips

1	2	3	4	5	6

Complete the text by filling in the missing words from the box on the right. There are THREE words you will not need.

IBM has created a new computer chip that will (1) _____ performance by 50%. 50 billion transistors can be (2) _____ on a 2nm chip the size of a fingernail. Up to now IBM, has produced 7nm chips. More (3) _____, the basic parts of computer chips, lead to better performance.

In addition, the new chip uses up to 75% less (4) _____. This will increase the (5) _____ life of cell phones dramatically. The chip is also expected to boost (6) _____ in huge datacentres that need a lot of power. Faster graphic cards and speedier object (7) _____ on cameras are other effects of the new chip. Artificial intelligence, which (8) _____ heavily on computing power, would profit massively from a new (9) _____ of chips.

Even though computer experts are excited about the new (10) _____, it will take a few years before the new chip can be mass-produced. This comes at a time when a (11) _____ of computer chips has hit major manufacturing areas, including the automobile industry and smartphone production.

For years IBM has been (12) _____ on chip development and sold its chip production in 2014.

battery
concentrating
detection
development
energy
improve
generation
graphic
loss
performance
placed
relies
shortage
size
transistors



KEY**Answer the following questions.**

1. 50 percent / half
2. 2 nm / 2 nanometres
3. increase battery life / use less energy
4. datacentres / object detection / artificial intelligence
5. not until a few years / in a few years
6. automobile industry / smartphone production
7. development (of chips)

Match the sentence beginnings with the endings. There are TWO endings you will not need.

1	2	3	4	5	6
C	F	D	A	H	B

Complete the text by filling in the missing words from the box on the right. There are THREE words you will not need.

IBM has created a new computer chip that will (1) **improve** performance by 50%. 50 billion transistors can be (2) **placed** on a 2nm chip the size of a fingernail. Up to now IBM, has produced 7nm chips. More (3) **transistors**, the basic parts of computer chips, lead to better performance.

In addition, the new chip uses up to 75% less (4) **energy**. This will increase the (5) **battery** life of cell phones dramatically. The chip is also expected to boost (6) **performance** in huge datacentres that need a lot of power. Faster graphic cards and speedier object (7) **detection** on cameras are other effects of the new chip. Artificial intelligence, which (8) **relies** heavily on computing power, would profit massively from a new (9) **generation** of chips.

Even though computer experts are excited about the new (10) **development**, it will take a few years before the new chip can be mass-produced. This comes at a time when a (11) **shortage** of computer chips has hit major manufacturing areas, including the automobile industry and smartphone production.

For years IBM has been (12) **concentrating** on chip development and sold its chip production in 2014.