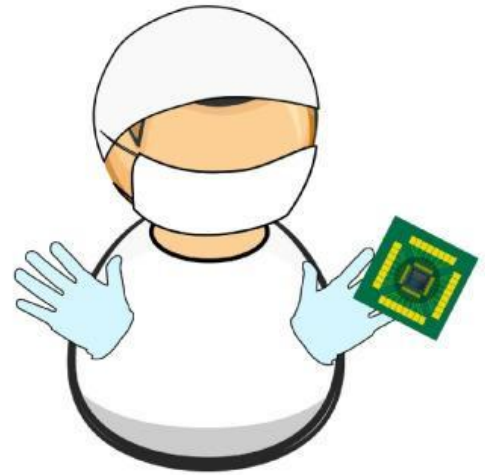


IBM has created a new computer chip that will **improve performance** by 50%. 50 billion **transistors** can be placed on a 2nm chip the size of a fingernail. Up to now IBM, has produced 7nm chips. More transistors, the basic parts of computer chips, lead to better performance.

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	A	will take a few years to achieve
2	In addition to more power	B	is IBM's main area of business
3	Graphic cards and detecting objects	C	improve performance by 50%
4	Mass production of the new chip	D	are areas where the new chip can be used.
5	The car industry and smartphone production	E	will start within the next few years
6	The development of computer chips	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.