**Answer1**:“Blocks” on the blockchain are made up of digital pieces of information. Specifically, they have three parts:

Blocks store information about transactions like the date, time, and dollar amount of your most recent purchase from Amazon.

Blocks store information about who is participating in transactions. A block for your splurge purchase from Amazon would record your name along with Amazon.com, Inc. (AMZN). Instead of using your actual name, your purchase is recorded without any identifying information using a unique “digital signature,” sort of like a username.

Blocks store information that distinguishes them from other blocks. Much like you and I have names to distinguish us from one another, each block stores a unique code called a “hash” that allows us to tell it apart from every other block. Hashes are cryptographic codes created by special algorithms. Let’s say you made your splurge purchase on Amazon, but while it’s in transit, you decide you just can’t resist and need a second one.

**Answer2:**

1. Cross-Border Payments: Blockchain helps streamline the entire process by cutting out any and all middlemen, and lengthy procedures, thereby the burden of unnecessary time delays.

2. Supply Chain Management:One of the key benefits that blockchain brings to Supply Chain Management would be interoperability.The transparency in data sharing makes sure that everyone is on the same page – starting from the manufacturers to retailers, vendors, and even the contractors. In turn, this helps to reduce any conflict and delay in operations.

3. Accountability Issues With Traditional Contracts and Agreements: There are tons of startups and companies that have already adopted smart contracts in exchange for traditional agreements. Here are a few notable mentions:

Tradelanse: It helps digitize the supply chain by easing agreements and traditional contracts.

Tradeix: Tradeix is rewriting working capital finance and trade using blockchain. They provide value for alternative funders banks, value-added providers and so on!

**Answer3:**

1. Greater transparency

Transaction histories are becoming more transparent through the use of blockchain technology. Because blockchain is a type of distributed ledger, all network participants share the same documentation as opposed to individual copies.

2. Enhanced security

There are several ways blockchain is more secure than other record-keeping systems. Transactions must be agreed upon before they are recorded. After a transaction is approved, it is encrypted and linked to the previous transaction.

3. Improved traceability

If your company deals with products that are traded through a complex supply chain, you’re familiar with how hard it can be to trace an item back to its origin.

4. Increased efficiency and speed

When you use traditional, paper-heavy processes, trading anything is a time-consuming process that is prone to human error and often requires third-party mediation. By streamlining and automating these processes with blockchain, transactions can be completed faster and more efficiently.

5. Reduced costs

For most businesses, reducing costs is a priority. With blockchain, you don’t need as many third parties or middlemen to make guarantees because it doesn’t matter if you can trust your trading partner. Instead, you just have to trust the data on the blockchain.

**Answer4:**

Each block contains, among other things, the current time, a record of some or all recent transactions, and a reference to the block that came immediately before it. It also contains an answer to a difficult-to-solve mathematical puzzle - the answer to which is unique to each block. New blocks cannot be submitted to the network without the correct answer - the process of "mining" is essentially the process of competing to be the next to find the answer that "solves" the current block. The mathematical problem in each block is extremely difficult to solve, but once a valid solution is found, it is very easy for the rest of the network to confirm that the solution is correct. There are multiple valid solutions for any given block - only one of the solutions needs to be found for the block to be solved.

Because there is a reward of brand new bitcoins for solving each block, every block also contains a record of which Bitcoin addresses or scripts are entitled to receive the reward. This record is known as a generation transaction, or a coinbase transaction, and is always the first transaction appearing in every block. The number of Bitcoins generated per block starts at 50 and is halved every 210,000 blocks (about four years).

**Answer5:**

Blockchain promises to solve this problem. The technology at the heart of bitcoin and other virtual currencies, blockchain is an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way. The ledger itself can also be programmed to trigger transactions automatically.

True blockchain-led transformation of business and government, we believe, is still many years away. That’s because blockchain is not a “disruptive” technology, which can attack a traditional business model with a lower-cost solution and overtake incumbent firms quickly. Blockchain is a foundational technology: It has the potential to create new foundations for our economic and social systems. But while the impact will be enormous, it will take decades for blockchain to seep into our economic and social infrastructure. The process of adoption will be gradual and steady, not sudden, as waves of technological and institutional change gain momentum.