

ANSWER 10 –

In JavaScript, the `super` keyword is used to call and access the parent class's properties and methods from within a subclass. It allows the subclass to inherit and invoke the functionalities of its superclass. The `super` keyword is typically used inside the constructor and methods of the subclass to reference the corresponding constructor and methods of the parent class.

Here's an explanation of the `super` keyword and its usage:

Accessing the Parent Constructor: In a subclass, the `super` keyword can be used in the constructor to call the constructor of the parent class. This allows the subclass to inherit the properties and behaviors defined in the parent class.

```
class Parent {  
  constructor(name) {  
    this.name = name;  
  }  
}  
  
class Child extends Parent {  
  constructor(name, age) {  
    super(name); // Calling the parent constructor  
    this.age = age;  
  }  
}  
  
const child = new Child('John', 25);  
console.log(child.name); // Output: John  
console.log(child.age); // Output: 25
```

In this example, the Child class extends the Parent class. The `super(name)` statement in the Child constructor calls the Parent constructor with the name argument, ensuring that the name property is properly initialized in the Child object.

Invoking Parent Class Methods: The `super` keyword can also be used within methods of the subclass to invoke methods of the parent class. This allows the subclass to leverage the existing functionality provided by the parent class and optionally extend or override it.

```
class Parent {  
  greet() {  
    console.log('Hello from the Parent class!');  
  }  
}
```

```
class Child extends Parent {  
  greet() {  
    super.greet(); // Calling the parent method  
    console.log('Hello from the Child class!');  
  }  
}
```

```
const child = new Child();  
child.greet();
```

In this example, the Child class overrides the `greet` method of the Parent class but still calls the parent method using `super.greet()`. This allows both the parent and child methods to be executed, resulting in the output: "Hello from the Parent class!" followed by "Hello from the Child class!".

The `super` keyword provides a way to access and invoke the parent class's constructor and methods from within the subclass. It ensures proper inheritance and allows for extending or overriding the parent class's behavior. The usage of `super` enhances code organization, modularity, and reusability when working with class hierarchies in JavaScript.