

24) as Fragment one - Logic or declarative paradigm.

It is clear that the code has established a series of facts (hair(sally, red)), and the program then uses these facts in a query. The fact that the program does not determine sally's hair through its procedures shows the ability of resolution, part of the logic paradigm.

Fragment 2 - Functional paradigm.

The obvious lack of variables, and the containment of the whole program within functions and lists in C's, shows it's a functional paradigm.

24) b) The As programmers continued making programs, they realised they were re-writing similar code to what they had written before. Their past work was not be utilised in later projects. They identified that by writing code in reusable 'objects', then they could use their previous work to solve a similar problem, thus saving time and effort.

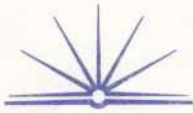
Although modules could be copied, Object Oriented programming provided superior code reuse.

Firstly, it encapsulated the code of classes so they could be used without necessarily being understood.

Polymorphism allowed the alteration of certain methods in a specific object to change their function to solve new problems.

Inheritance allowed the extension of previous work to add additional functions to meet new problems.

These superiorities gave great flexibility and ability of code reuse, and was the reason for object-oriented programs being designed.



© (i) The two integer variables height and width we defined as private to the class TRectangle, yet on lines (23) and (25) values are attempting to be assigned to them.

This can be fixed by either defining height and width as public, or ~~or~~ defining functions as part of the ~~class~~ class TRectangle to assign values to them.

type

```
(ii) type PTriangle = ^TTriangle;  
      TTriangle = object (TObject)  
      public  
        base, height : integer;  
        function area : integer;  
      end
```

```
function TTriangle.area : integer;
```

```
begin
```

```
  area := (0.5 * base * height);
```

```
end;
```


① In my view, the most appropriate programming paradigm for this system would be the logic paradigm. There are many variables in this system, yet the main activity of the system is based on rules. For example if ~~or~~ the number of flights equals a certain amount, then so many chutes are used. So I believe that if all of the rules were entered in to a logic based system it would be able to work through the data provided and produce the appropriate solution with more efficiency and in some cases more accurately than other paradigms.

Also, if an ~~unexpected~~ unusual set of data come in, it is my understanding that the logic paradigm would handle this method most gracefully.

Also, as the definition stated that an automatic set of ~~compression~~ 'compression rules' are to be used this also could lead me to believe that the logic paradigm would be the most appropriate.