

Name

Date

**Section 1:** Draw one line to match most appropriate answer for each description.

**Programming paradigm**

**Description**

DECLARATIVE

IMPERATIVE

LOW - LEVEL

OBJECT- ORIENTED

Programs using the instruction set of a processor

Programs using the concepts of class, inheritance, encapsulation and polymorphism

Programs that specify the desired result rather than how to get to it

Programs based on events such as user actions or sensor outputs

Programs with an explicit sequence of commands that update the program state, with or without procedure calls

**Section 2:**

1/. State THREE essential features of recursion.

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2/. Explain the reasons why a stack is a suitable Abstract Data Type (ADT) to implement recursion.

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3/. Identify two ADT;s other than a stack.

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4/. Define these Object-Oriented Programming (OOP) Terms:

Encapsulation: 

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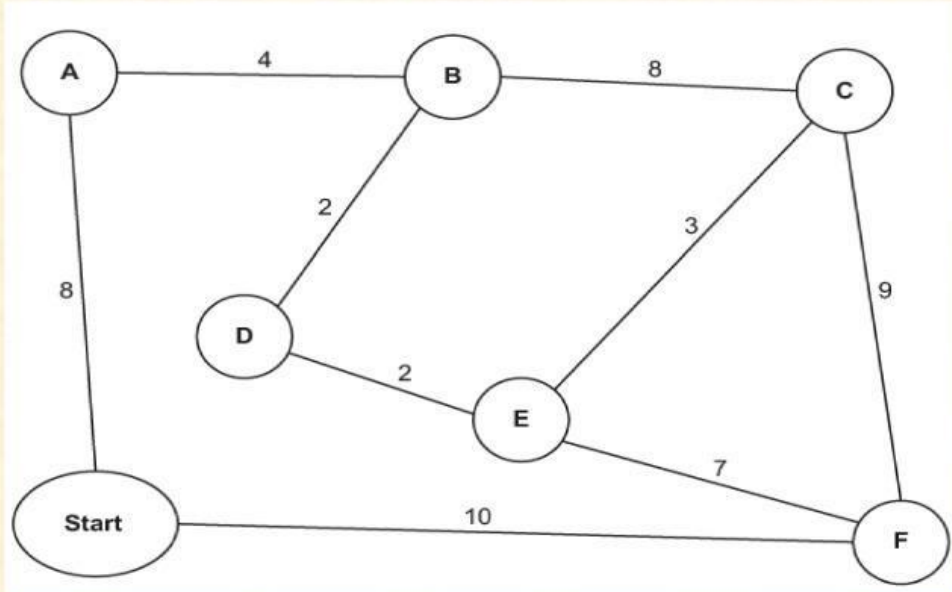
Getter: 

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Setter: 

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**Section 3:** Calculate the shortest distance between the START and each of the destinations in the diagram. Show your working.



SHOW YOUR WORKING

ANSWER

| A | B | C | D | E | F |
|---|---|---|---|---|---|
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