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Largest of 3 Template

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| //CODE:  #include <iostream>  using namespace std;  /\*\*\*\*\* Declaration Section \*\*\*\*\*/  class Rectangle{  private:  int width, length, area;  char name;  public:  Rectangle();  Rectangle(int w, int l, char n);  Rectangle operator+(Rectangle& r);  void setArea(int w,int l);  int getArea();  void setName(char n);  char getName();  void displayInfo();  };  /\*\*\*\*\* Implementation section \*\*\*\*\*/  Rectangle :: Rectangle():length(2), width(1),area(length\*width),name('X') {};  Rectangle :: Rectangle(int w, int l,char n):width(w),length(l),area(width\*length),name(n){};  Rectangle Rectangle :: operator+(Rectangle& r){  Rectangle temp;  temp.length=this->length+r.width;  temp.width=this->width+r.length;  return temp;  };  void Rectangle::setArea(int w, int l) {area=w\*l;}  int Rectangle ::getArea(){return this->area;}  void Rectangle :: setName(char n){name = n;}  char Rectangle :: getName(){return name;}  void Rectangle::displayInfo(){  cout<<"\*\*\*\*\*\* Display Info \*\*\*\*\*\*"<<endl;  cout<<"Name: "<<this->name<<endl;  cout<<"Width: "<<this->width<<endl;  cout<<"Length: "<<this->length<<endl;  cout<<"Area: "<<this->area<<endl;  };  template <typename T>  T& largest( T& a, T& b, T& c){  T& Max = a;  if((b.getArea()>a.getArea())&& (b.getArea()>c.getArea()))  return Max = b;  if ((c.getArea()>a.getArea())&&(c.getArea()>b.getArea()))  return Max = c;  return Max;    }  int main(){  Rectangle x;  Rectangle y(5,10,'X');  Rectangle z (30,60,'Z');  cout<<"RECTANGLE X"<<endl;  x.displayInfo();  cout<<"RECTANGLE Y"<<endl;  y.displayInfo();  cout<<"RECTANGLE Z"<<endl;  z.displayInfo();    Rectangle largeRect = largest(x,y,z);  cout<<"\nThe largest rectangle is "<<largeRect.getName()<<"\n Area: "<<largeRect.getArea() <<endl;  return 0;  } |
| OUTPUT: RECTANGLE X  \*\*\*\*\*\* Display Info \*\*\*\*\*\*  Name: X  Width: 1  Length: 2  Area: 2  RECTANGLE Y  \*\*\*\*\*\* Display Info \*\*\*\*\*\*  Name: X  Width: 5  Length: 10  Area: 50  RECTANGLE Z  \*\*\*\*\*\* Display Info \*\*\*\*\*\*  Name: Z  Width: 30  Length: 60  Area: 1800  The largest rectangle is Z  Area: 1800 |