se.hig.oodp.lab.model se.hig.oodp.lab.model.figure **C** Rectangle **C** Triangle C Vertex2D **C** Square □ v0:Vertex2D □ v0:Vertex2D □ v1:Vertex2D C Line □ v1:Vertex2D v0:Vertex2D □ v3:Vertex2D **C** Polygon v2:Vertex2D □ y:double □ v1:Vertex2D □ v3:Vertex2D □ v0:Vertex2D width:double □ v3:Vertex2D □ width:double Vertex2D(x:double, y:double) height:double □ v1:Vertex2D □ v3:Vertex2D □ height:double Polygon(center:Vertex2D, vertices:Vertex2D...) □ sideLength:double getX():double Triangle(center:Vertex2D, width:double, height:double) Line(v0:Vertex2D, v1:Vertex2D) Rectangle(center:Vertex2D, width:double, height:double) scale(Factor:double, yFactor:double) getY():double Rectangle(v0:Vertex2D, v1:Vertex2D, v2:Vertex2D, v3:Vertex2D) Triangle(v0:Vertex2D, v1:Vertex2D, v2:Vertex2D) Square(center:Vertex2D, side:double) moveBy(dx:double, dy:double):Vertex2D toString():String updateCenterPoint() toString():String rotate(ref:Vertex2D, angle:double):Vertex2D calculateVerticesFromCenter() updateCenterPoint() calculateVerticesFromCenter() • scale(ref:Vertex2D, x_factor:double, y_factor:double):Vertex2D calculateCenterPoint(xFactor:double, yFactor:double) calculateVerticesFromCenter() updateCenterPoint(xFactor:double, yFactor:double) toString():String toString():String toString():String calculateWidth() calculateHeight() updateCenterPoint(xFactor:double, yFactor:double) toString():String se.hig.oodp.lab.model.simplefigure (A) Figure **C** Ellipse O DEFAULT_X_COORD:double C Circle DEFAULT Y COORD:double ¬ width:double C Point height:double ☐ radius:double Figure(center:Vertex2D) Figure consists of Ellipse(position:Vertex2D, width:double, height:double) Circle(position:Vertex2D, radius:double addVerticesToList(newVertices:Vertex2D...) Point(position:Vertex2D) any number of points. rotate(angle:double) scale(xFactor:double, yFactor:double) scale(factor:double) toString():String scale(xFactor:double, yFactor:double) rotate(angle:double) getRadius():double updateCenterPoint(xFactor:double, yFactor:double) getWidth():double toString():String moveBy(dx:double, dy:double) getHeight():double toString():String getCenter():Vertex2D getVertex(n:int):Vertex2D (A) SimpleFigure **I** Rotatable **I** Scalable **I** Movable position:Vertex2D Simpler figure consists of just $^{f ext{}}$ one single point, the center. SimpleFigure(position:Vertex2D) moveBy(dx:double, dy:double) rotate(angle:double) scale(xFactor:double, yFactor:double) moveBy(dx:double, dy:double) getPosition():Vertex2D