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| NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_ | **Computer Programming** |
| Lego Classes | **DATE: Monday, December 05, 2016** |

/\*

\* This class represents a lego piece.

\* It has an x,y (its location on grid - the upper left stud is 0,0

\* It has a color - if not chosen it is anything

\* The width is the horizontal distance, length - vertical

\* Direction is either horizontal or vertical. By default it is horizontal. \*

\*/

public class LegoPiece

{

int x;

int y;

int width;

int length;

Color color;

String direction="horizontal";

int level=1;

public LegoPiece (int theWidth, int theLength)

{

width=theWidth;

length=theLength;

}

public LegoPiece (int theWidth, int theLength, Color theColor)

{

width=theWidth;

length=theLength;

color=theColor;

}

public void setDirection(String newDirection)

{

direction=newDirection;

}

public void setLocation(int newX, int newY)

{

x=newX;

y=newY;

}

//This method will put this lego piece on top other lego piece with same upper left coordinate.

//note lego's coordinates start at 0,0.

public void snapTo(LegoPiece otherPiece, int legoX, int legoY)

{

x=otherPiece.x+legoX;

y=otherPiece.y+legoY;

level=otherPiece.level++;

}

}

The class to the right represents a lego piece.

Try to follow the instructions to create my shape:

public void myInstructions()

{

LegoPiece rect1=new LegoPiece(4,2);

rect1.setDirection("vertical");

rect1.setLocation(2,0);

LegoPiece square1=new LegoPiece(2,2);

square1.setLocation(0,1);

LegoPiece square2=new LegoPiece(2,2);

square2.setLocation(4,1);

LegoPiece rect2=new LegoPiece(2,1);

rect2.snapTo(square1,1,0);

LegoPiece rect3=new LegoPiece(2,1);

rect3.snapTo(rect1,1,1);

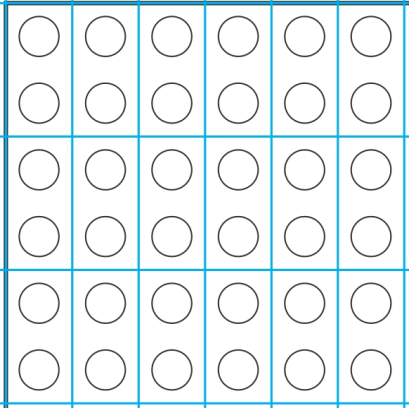
LegoPiece rect4=new LegoPiece(2,1);

rect4.snapTo(rect2,1,0);

LegoPiece square3=new LegoPiece(2,2,Color.red);

square3.snapTo(rect4,0,0);

}



Create your own instruction sheet. You can use up to 10 bricks.