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A Line has a length and a paintChar used to paint
itself on a Screen.

Subclasses of this abstract class specify the direction
of the Line.

@version 5

public abstract class Line
{
    protected int  length;      // length in (character) pixels.
    protected char paintChar;   // character used for painting.

    protected Line( int length, char paintChar )
    {
        this.length    = length;
        this.paintChar = paintChar;
    }

    public int getLength()
    {
        return length;
    }

    public void setLength( int length )
    {
        this.length = length;
    }

    public char getPaintChar()
    {
        return paintChar;
    }

    public void setPaintChar( char paintChar )
    {
        this.paintChar = paintChar;
    }

    public abstract void paintOn( Screen s, int x, int y );

    public void paintOn( Screen s )
    {
        paintOn( s, 0, 0 );
    }

    public abstract void paintOn( Screen s, Screen s, char x, char y );

    public abstract char getPaintChar();

    public abstract void setPaintChar( char paintChar );

    // other methods
}