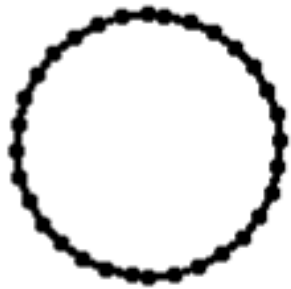


Circle Calculation



20 x 20 mm

MATH

1 Create a new object (I. Embroidery-Objects tutorial).

Equation of the circle:

$$(x - m_x)^2 + (y - m_y)^2 = r^2$$

m_x is the x-coordinate of the center.
 m_y is the y-coordinate of the center.

2

When scene starts

- Set variable radius to 50
- Set variable m_x to 100
- Set variable m_y to 300
- Set variable ykoord to " m_y " - "radius"
- Place at x: " m_x " y: "ykoord"
- Start running stitch with length 10

This part belongs to point 2.

Repeat "radius" x 2 + 1 times

Place at x: square root... y: "ykoord"

Change variable ykoord by 1

End of loop

Stitch

Change variable ykoord by -1

Repeat "radius" x 2 + 1 times

Place at x: -square roo... y: "ykoord"

Change variable m_x by -1

End of loop

Stitch

3 If it doesn't work, control the bricks.

Calculate the x-coordinate for the right side of the circle.
 Reshape the equation of the circle:

```
Place at x: 100 y: 200
```

square root(power("radius", 2) - power(("ykoord" - "m_y"), 2)) + " m_x "

Tip: You find the math functions in „Functions“ in the formal editor.

Calculate the x-coordinate for the left side of the circle.

```
Place at x: -square roo... y: "ykoord"
```

- square root(power("radius", 2) - power(("ykoord" - "m_y"), 2)) + " m_x "