



$4x^2 + 24x = x^2 + 24x + 144$
 $3x^2 = 144$
 $x^2 = 48$
 $x = \sqrt{48} = 4\sqrt{3}$

Xander M

Misha D

Let the radius of the green glade be x .
Draw the Line from the center of the green glade to the center of the orange orchard.
The length of that line is $x + \frac{24}{2} = x + 12$.

Form the equation $(24-x)^2 + 12^2 = (12+x)^2$

$$576 - 48x + x^2 + 144 = x^2 + 24x + 144$$

$$-x^2 - 144 - 24x$$

$$-x^2 - 144 - 24x$$

$$576 - 72x = 0$$

$$576 = 72x$$

$$x = \frac{576}{72} = 8$$

Hence the biggest radius of the green glade is 8 m.

Xander M

Misha D