63. Completing the square gives $x^2 + y^2 - 4x + 10y + 13 = 0 \quad \Leftrightarrow$
$x^2 - 4x + \underline{} + y^2 + 10y + \underline{} = -13 \quad \Leftrightarrow$
$x^2 - 4x + \left(\frac{-4}{2}\right)^2 + y^2 + 10y + \left(\frac{10}{2}\right)^2 = -13 + \left(\frac{4}{2}\right)^2 + \left(\frac{10}{2}\right)^2 \quad \Leftrightarrow$
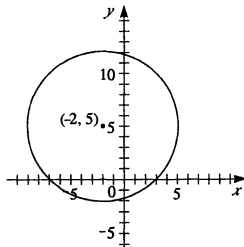$x^2 - 4x + 4 + y^2 + 10y + 25 = -13 + 4 + 25 \quad \Leftrightarrow \quad (x-2)^2 + (y+5)^2 = 16.$
Thus, the center is $(2, -5)$, and the radius is 4.

65. Completing the square gives $x^2 + y^2 + x = 0 \quad \Leftrightarrow \quad x^2 + x + \underline{} + y^2 = 0 \quad \Leftrightarrow$
$x^2 + x + \left(\frac{1}{2}\right)^2 + y^2 = \left(\frac{1}{2}\right)^2 \quad \Leftrightarrow \quad x^2 + x + \frac{1}{4} + y^2 = \frac{1}{4} \quad \Leftrightarrow \quad \left(x + \frac{1}{2}\right)^2 + y^2 = \frac{1}{4}.$ Thus, the
center: $\left(-\frac{1}{2}, 0\right)$, and the radius is $\frac{1}{2}$.

67. Completing the square gives $x^2 + y^2 - \frac{1}{2}x + \frac{1}{2}y = \frac{1}{8} \quad \Leftrightarrow \quad x^2 - \frac{1}{2}x + \underline{} + y^2 + \frac{1}{2}y + \underline{} = \frac{1}{8}$
$\Leftrightarrow \quad x^2 - \frac{1}{2}x + \left(\frac{-1/2}{2}\right)^2 + y^2 + \frac{1}{2}y + \left(\frac{1/2}{2}\right)^2 = \frac{1}{8} + \left(\frac{-1/2}{2}\right)^2 + \left(\frac{1/2}{2}\right)^2 \quad \Leftrightarrow$
$x^2 - \frac{1}{2}x + \frac{1}{16} + y^2 + \frac{1}{2}y + \frac{1}{16} = \frac{1}{8} + \frac{1}{16} + \frac{1}{16} = \frac{2}{8} = \frac{1}{4} \quad \Leftrightarrow \quad \left(x - \frac{1}{4}\right)^2 + \left(y + \frac{1}{4}\right)^2 = \frac{1}{4}.$ Thus, the
center is $\left(\frac{1}{4}, -\frac{1}{4}\right)$, and the radius is $\frac{1}{2}$.

69. Completing the square gives $x^2 + y^2 + 4x - 10y = 21 \quad \Leftrightarrow$
$x^2 + 4x + \underline{} + y^2 - 10y + \underline{} = 21 \quad \Leftrightarrow$
$x^2 + 4x + \left(\frac{4}{2}\right)^2 + y^2 - 10y + \left(\frac{-10}{2}\right)^2 = 21 + \left(\frac{4}{2}\right)^2 + \left(\frac{-10}{2}\right)^2 \quad \Leftrightarrow$
$(x+2)^2 + (y-5)^2 = 21 + 4 + 25 = 50.$
Thus, the center is $(-2, 5)$, and the radius is $\sqrt{50} = 5\sqrt{2}$.

71. Completing the square gives $x^2 + y^2 + 6x - 12y + 45 = 0 \quad \Leftrightarrow$
$x^2 + 6x + \underline{} + y^2 - 12y + \underline{} = -45 \quad \Leftrightarrow$
$x^2 + 6x + \left(\frac{6}{2}\right)^2 + y^2 - 12y + \left(\frac{-12}{2}\right)^2 = -45 + \left(\frac{6}{2}\right)^2 + \left(\frac{-12}{2}\right)^2 \quad \Leftrightarrow$
$(x+3)^2 + (y-6)^2 = -45 + 9 + 36 = 0.$ Thus, the center is $(-3, 6)$,
and the radius is 0. This is a degenerate circle whose graph consists only
of the point $(-3, 6)$.