

ØVELSE 6.1

a) $(x-1)^2 + (y-4)^2 = 2^2$

b) $(x-0)^2 + (y-6)^2 = 7^2 \Leftrightarrow x^2 + (y-6)^2 = 7^2$

c) $(x+3)^2 + (y-7)^2 = 1^2$

ØVELSE 6.2

a) $x^2 + y^2 - 6x + 4y = 23$

$$x^2 - 6x + y^2 + 4y = 23$$

$$(x-3)^2 - 3^2 + (y+2)^2 - 2^2 = 23$$

$$(x-3)^2 + (y+2)^2 = 23 + 9 + 4 = 36$$

$$(x-3)^2 + (y+2)^2 = 6^2 \text{ dvs}$$

$$\underline{\underline{r=6 \text{ og } C(3, -2)}}$$

b) $x^2 + y^2 + 2x = 24$

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$$(x-0)^2 + (y+1)^2 - 1^2 = 24$$

$$(x-0)^2 + (y+1)^2 = 24 + 1 = 25$$

$$(x-0)^2 + (y+1)^2 = 5^2 \Rightarrow \underline{\underline{r=5 \text{ og } C(0, -1)}}$$

c) $x^2 + y^2 + 8x + 4y = 61$

$$(x+4)^2 - 4^2 + (y+2)^2 - 2^2 = 61$$

$$(x+4)^2 + (y+2)^2 = 61 + 16 + 4 = 81$$

$$(x+4)^2 + (y+2)^2 = 9^2 \Rightarrow \underline{\underline{r=9 \text{ og } C(-4, -2)}}$$