

Rewrite the equation in the left column into the format in the middle column. The answers are in the third column.

1. $y^2 - 4y + 4x + 4 = 0$	$(y - k)^2 = 4p(x - h)$	$(y - 2)^2 = -4(x - 0)$
2. $3x^2 + 3y^2 - 6x + 12y = 0$	$(x - h)^2 + (y - k)^2 = r^2$	$(x - 1)^2 + (y + 2)^2 = 5$
3. $4x^2 + y^2 - 8x + 4y + 4 = 0$	$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$	$\frac{(x - 1)^2}{1} + \frac{(y + 2)^2}{4} = 1$
4. $4x^2 - y^2 - 4y + 8x - 4 = 0$	$\frac{(x - h)^2}{a^2} - \frac{(y - k)^2}{b^2} = 1$	$\frac{(x + 1)^2}{1} - \frac{(y + 2)^2}{4} = 1$
5. $4x^2 + 3y^2 + 8x - 6y = 5$	$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$	$\frac{(x + 1)^2}{3} + \frac{(y - 1)^2}{4} = 1$
6. $x^2 + 6x - 4y + 1 = 0$	$(x - h)^2 = 4p(y - k)$	$(x + 3)^2 = 4(y + 2)$
7. $2x^2 + 3y^2 - 8x + 6y + 5 = 0$	$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$	$\frac{(x - 2)^2}{3} + \frac{(y + 1)^2}{2} = 1$
8. $x^2 + 4x + y^2 - 2y = 0$	$(x - h)^2 + (y - k)^2 = r^2$	$(x + 2)^2 + (y - 1)^2 = 5$
9. $9x^2 + 4y^2 - 18x + 16y - 11 = 0$	$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$	$\frac{(x - 1)^2}{4} + \frac{(y + 2)^2}{9} = 1$
10. $x^2 - 4x = y + 4$	$(x - h)^2 = 4p(y - k)$	$(x - 2)^2 = 1(y + 8)$
11. $2x^2 + 2y^2 - 12x + 8y - 24 = 0$	$(x - h)^2 + (y - k)^2 = r^2$	$(x - 3)^2 + (y + 2)^2 = 25$
12. $y^2 - 4x^2 - 16x - 2y - 19 = 0$	$\frac{(y - k)^2}{b^2} - \frac{(x - h)^2}{a^2} = 1$	$\frac{(y - 1)^2}{4} - \frac{(x + 2)^2}{1} = 1$
13. $x^2 + 3y^2 + 8x - 6y = 5$	$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$	$\frac{(x + 4)^2}{24} + \frac{(y - 1)^2}{8} = 1$
14. $x^2 - y^2 - 2x - 2y - 1 = 0$	$\frac{(x - h)^2}{a^2} - \frac{(y - k)^2}{b^2} = 1$	$\frac{(x - 1)^2}{1} - \frac{(y + 1)^2}{1} = 1$
15. $x^2 - 4x = 2y$	$(x - h)^2 = 4p(y - k)$	$(x - 2)^2 = 2(y + 2)$
16. $x^2 + y^2 + 4x - 4y - 1 = 0$	$(x - h)^2 + (y - k)^2 = r^2$	$(x + 2)^2 + (y - 2)^2 = 9$
17. $9x^2 + y^2 - 18x = 0$	$\frac{(x - h)^2}{a^2} + \frac{(y - k)^2}{b^2} = 1$	$\frac{(x - 1)^2}{1} + \frac{(y - 0)^2}{9} = 1$
18. $2x^2 + 2y^2 + 8x + 7 = 0$	$(x - h)^2 + (y - k)^2 = r^2$	$(x + 2)^2 + (y - 0)^2 = \frac{1}{2}$
19. $x^2 - 3y^2 + 8x - 6y + 4 = 0$	$\frac{(x - h)^2}{a^2} - \frac{(y - k)^2}{b^2} = 1$	$\frac{(x + 4)^2}{9} - \frac{(y + 1)^2}{3} = 1$
20. $x^2 + y^2 - 6x + 2y + 9 = 0$	$(x - h)^2 + (y - k)^2 = r^2$	$(x - 3)^2 + (y + 1)^2 = 1$