Solve the system of equations by graphing, substitution, and elimination.

1. $y=\frac{1}{2} x-7$
$5 x+2 y=10$

2. $y=(x+1)^{2}$
$x+y=1$


Solve the systems algebraically and check your answer graphically on a graphing app.
3. $x=y+3, x-y^{2}=3 y$
4. $y=2 x^{2}+x, 2 x+y=20$
5. $y=x^{3}+3 x^{2}, y=-2 x-6$

Find the intersections (if any) of the circle and the given curve algebraically,. Then graph the two equations to verify your answer.
6. $x^{2}+y^{2}=9$

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y=x+1
$$

7. $x^{2}+y^{2}=25$
$y=-2 x+3$
8. $x^{2}+y^{2}=4$
$y=-x+8$



