Review Math 2 **Using Completing the Square**

Solve the following equations by completing the square:

1. $x^2 - 12x - 64 = 0$

2. $x^2 + 4x - 32 = 0$

3. $2x^2 + 16x - 12 = 0$

4. $4x^2 - 16x - 3 = -10$

The standard form of a circle with the center at (h, k) and radius r is: $(x-h)^2 + (y-k)^2 = r^2$
Use completing the square to rewrite the equations of the circles in standard form.

5. $x^2 + y^2 - 6y = -5$

6. $x^2 + y^2 + 4y = 12$

7. $x^2 - 8x + y^2 + 2y = 8$

8. $x^2 + 8x + y^2 - 2y = 64$

9. $x^2 - 8x + y^2 + 2y = 8$

10. $x^2 + 14x + y^2 - 12y = -4$

11. $x^2 + 2x + y^2 - 24y = -120$

12. $x^2 - 8x + y^2 - 32y = -263$

13. $x^2 + y^2 + 12y - 13 = 0$

14. $4x^2 - 24x + 4y^2 - 24y - 9 = 0$