## LESSON PRACTICE

11A

Complete the square by finding the last term.

1. $X^2 + 10X + \_\_\_\_\_$

2. $X^2 - 8X + \_\_\_\_\_$

Complete the square by finding the middle term.

3. $X^2 + \_\_\_\_\_ + 4$

4. $A^2 + \_\_\_\_\_ + 225$

Solve for X. Complete the square when necessary. Check your work.

5. $X^2 + 2X + 3 = 0$

6. $X^2 - 5X + 4 = 0$

7. $2X^2 + 8X + 2 = 0$

8. $X^2 + 4X - 7 = 0$

9. $3X^2 - 9X + 3 = 0$

10. $X^2 - 2X - 11 = 0$

Answer the questions.

1. Expand $(3X - 1/4)^2$.

2. Expand $(X + 11)^2$.

Complete the square by finding the missing term.

3. $X^2 + 8X + \_\_\_\_$

4. $X^2 + 30X + \_\_\_\_$

5. $X^2 + \_\_\_\_ + 36$

6. $4X^2 + \_\_\_\_ + 9$

Solve for X. Complete the square when necessary.

7. $X^2 - 3X - 9 = 0$

8. Check the validity of the roots in #7 by placing them in the original equation.

9. $2X^2 + 3X - 2 = 0$

10. Check the validity of the roots in #9 by placing them in the original equation.

11. Expand $(X + 2)^5$.

12. Expand $(2X - 1)^4$.

13. What is the third term of $(X - 1)^6$?

14. What is the fourth term of $(X - 1)^6$?

15. Expand $(3X + 1)^3$.

16. Find the cube root of $X^3 + 15X^2 + 75X + 125$.

Put in standard form.

17. $\dfrac{3 - 2\sqrt{-5}}{7i + 2}$

18. $\dfrac{1 + \sqrt{X}}{2 - \sqrt{X}}$

Simplify, and combine like terms when possible.

19. $(18i)\left(\sqrt{-36} + 7i\right)$

20. $(i^2)(i)(i^3)$