

Algebra 2B
Review #1

Multiply the following:

1. $(x+3)(x-6) = \underline{\hspace{4cm}}$

2. $(2x-7)(x+4) = \underline{\hspace{4cm}}$

3. $3(x+1)(x-1) = \underline{\hspace{4cm}}$

4. $(x-11)^2 = \underline{\hspace{4cm}}$

5. $(4x-5)(x^2+3x-6) = \underline{\hspace{4cm}}$

6. $(x+12)^2 = \underline{\hspace{4cm}}$

7. $3x(x-2)(x+3) = \underline{\hspace{4cm}}$

8. $(2x-11)(x+18) = \underline{\hspace{4cm}}$

Solve for x . Use either factoring or completing the square. If the answer is irrational, give both exact and approximate answers.

9. $(x-13)(x+3) = 0$ $x = \underline{\hspace{4cm}}$

10. $x^2 = 121$ $x = \underline{\hspace{4cm}}$

11. $x^2 - 7x - 18 = 0$ $x = \underline{\hspace{4cm}}$

12. $4x^2 - 8x - 140 = 0$ $x = \underline{\hspace{4cm}}$

13. $4x^2 - 8x + 3 = 0$ $x = \underline{\hspace{4cm}}$

$$14. x^2 - 8x + 16 = 0$$

$$x = \underline{\hspace{4cm}}$$

$$15. x^2 - 8x + 14 = 0$$

$$x = \underline{\hspace{4cm}}$$

$$16. x^2 - 30x + 216 = 0$$

$$x = \underline{\hspace{4cm}}$$

$$17. x^2 - 3x = 88$$

$$x = \underline{\hspace{4cm}}$$

$$18. x^2 - 22x = 104$$

$$x = \underline{\hspace{4cm}}$$

$$19. x^2 + 72 = 18x$$

$$x = \underline{\hspace{4cm}}$$

$$20. 2x^2 + 16x = -14$$

$$x = \underline{\hspace{4cm}}$$

$$21. 3x^2 - 22x + 7 = 0$$

$$x = \underline{\hspace{4cm}}$$

$$22. x^2 - 12x + 29 = 0$$

$$x = \underline{\hspace{4cm}}$$

$$23. x^2 + 49 = 16x$$

$$x = \underline{\hspace{4cm}}$$

$$24. x^2 + 2x = 5$$

$$x = \underline{\hspace{4cm}}$$

25. If $(x - 1)(x + 1) = 120$, then $x^2 =$ _____

26. A swimming pool is going to be built, 4 yards long by 6 yards wide. Right outside the swimming pool will be a tiled area, which will be the same width all around. The total area of the swimming pool and tiled area must be 63 yards.

a. Draw the situation. It doesn't have to be a fancy drawing, just a sketch that shows the 4, the 6, and the unknown width of the tiled area.

b. Write an algebra equation that gives the unknown width of the tiled area.

c. Solve the equation to find the width.

d. Check your answer by plugging it back into the original problem. If you got two answers, see if they both make sense in the problem.