

**Practice in Multiplying Two Binomials**  
**Set # 534**

#1. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x - 2)(x - 3)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#2. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x + 4)(x - 5)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#3. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x + 5)(x - 8)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#4. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x + 1)(x - 1)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#5. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x + 2)(x - 11)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#6. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x - 4)(x - 8)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#7. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x - 12)(x - 2)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#8. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x - 3)(x - 7)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#9. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x - 8)(x - 9)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#10. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (2x + 4)(x - 5)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#11. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (x + 4)(3x - 5)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#12. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (3x + 4)(2x - 5)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#13. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (5x + 4)(8x - 5)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

#14. If each of  $a$ ,  $b$ , and  $c$  is a number such that for each number  $x$ ,  $f(x) = ax^2 + bx + c$ , and for each number  $x$ ,  $f(x) = (7x + 4)(4x - 5)$ , then  $b^2 - 4ac =$  \_\_\_\_\_.

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