Practice Exercises on Factoring General Trinomials

A. True or False

Write True if the statement is true or False if it is false. One point each.

1. $6x^2 - 5x - 6 = (2x - 3)(3x + 2)$

2. $3x^2 + 17x + 10 = (3x + 2)(x - 5)$

3. $2x^2 + 5x - 3 = (2x - 1)(x + 3)$

4. $2x^2 - 3x - 9 = (x - 3)(2x - 3)$

5. $3x^2 - 17x + 10 = (x - 5)(3x - 2)$

B. Factoring General Trinomials

Factor each polynomial completely. Write the final answers only. One point each.

1. $3b^2 - 2b - 5$

2. $3m^2 - 8m + 4$

3. $2n^2 + 11n + 5$

4. $7m^2 + 53m + 28$

5. $15k^2 - 27k - 6$

6. $4n^2 - 15n - 25$

7. $4b^2 - 17b + 4$

8. $6n^2 + 37n + 6$

9. $6k^2 + 5k - 6$

10. $2p^2 + 2p - 4$

C. Fill in the Blank

Factor each polynomial completely then supply the missing terms. One point each.

1. $2n^2 + 3n - 9 = (\underline{\quad} - 3)(n + 3)$

2. $5n^2 + 19n + 12 = (5n + 4)(n + \underline{\quad})$

3. $2a^2 + 22a + 36 = 2(a + 2)(a + \underline{\quad})$

4. $2n^2 + 5n + 2 = (2n + \underline{\quad})(n + 2)$

5. $9n^2 + 66n + 21 = \underline{\quad}(3n + 1)(n + 7)$

6. $5n^2 - 18n + 9 = (\underline{\quad} - 3)(x - 3)$

7. $4a^2 - 35a + 49 = (a - \underline{\quad})(4a - 7)$

8. $4v^2 - 4v - 8 = 4(v + 1)(v - \underline{\quad})$

9. $6v^2 + 7v - 49 = (\underline{\quad} - 7)(2v + 7)$

10. $-6v^2 - 25v - 25 = \underline{\quad}(2v + 5)(3v + 5)$