

Name _____

12-5A Lesson Master**Questions on SPUR Objectives**

See pages 773–775 for objectives.

SKILLS Objective BIn 1 and 2, *multiple choice*. Which expression is the factorization of the given trinomial?

1. $8a^2 + 26a + 15$ _____

A $(8a + 5)(a + 3)$

C $(2a + 5)(4a + 3)$

B $(8a + 3)(a + 5)$

D $(2a + 3)(4a + 5)$

2. $5a^2 - 3a - 2$ _____

A $(5a - 2)(a + 1)$

C $(5a - 1)(a + 2)$

B $(5a + 2)(a - 1)$

D $(5a + 1)(a - 2)$

In 3–6, factor the trinomial completely.

3. $3m^2 - 2m - 8$ _____

4. $14a^2 + 11a + 2$ _____

5. $-6x^2 + 29x - 28$ _____

6. $15y^2 + 96y + 36$ _____

7. Solve by factoring: $3n^2 - 7n - 20 = 0$. _____

PROPERTIES Objective E8. Determine whether the quadratic expression $5a^2 + 13a + 2$ is factorable over the integers or is prime. _____9. *Multiple Choice*. Which of the expressions is prime?

A $3x^2 - 2x - 8$

C $3x^2 + 2x - 8$ _____

B $3x^2 + 10x - 8$

D $3x^2 - 2x + 8$ _____

10. Ray tried factoring the expression $4m^2 + 43m + 30$. He listed all the possible factorizations below that he could think of and decided it was a prime polynomial. Do you agree with his conclusion? Explain.

$(4m + 1)(m + 30)$

$(2m + 1)(2m + 30)$ _____

$(4m + 30)(m + 1)$

$(2m + 5)(2m + 6)$ _____

$(4m + 6)(m + 5)$

$(4m + 2)(m + 15)$ _____

$(4m + 5)(m + 6)$

$(4m + 15)(m + 2)$ _____