Name

12-4B Lesson Master

Questions on SPUR Objectives
See pages 773–775 for objectives.

SKILLS Objective B

In 1–10, factor completely.

1. $x^2 - x - 12$

2. $x^2 - 4$

3. $-c^2 + 4c - 3$

4. $b^2 - b - 2$

5. $-3h^2 - 15h - 12$

6. $a^2 - 11a + 30$

7. $x^2 + 4x + 4$

8. $y^2 - 4$

9. $z^2 + 2z - 3$

10. $f^2 - 2f + 1$

In 11 and 12, a trinomial is given.
a. Factor the trinomial.
b. What are the *x*-intercepts of the graph of the trinomial?

11. $b^2 - 5b + 6$

a. _____

b. _____

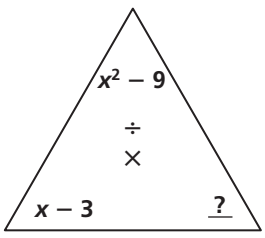
12. $c^2 + 2c - 15$

a. _____

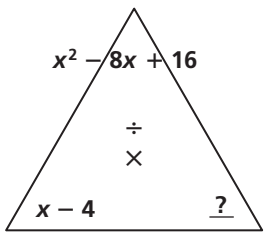
b. _____

13. *Fill in the blanks.*

a.



b.



Name _____

PROPERTIES Objective E

In 14–17, an expression is given.
a. For how many integer values of *b* is the expression factorable?
b. Give the value(s) of *b* that allow(s) the expression to be factored.

14. $x^2 - bx - 6$

a. _____

b. _____

15. $q^2 + bq + 1$

a. _____

b. _____

16. $k^2 + bk - 4$

a. _____

b. _____

17. $y^2 + by + 5$

a. _____

b. _____

In 18 and 19, which expression(s) is/are prime polynomials?

18. A $x^2 + 4x - 5$ B $d^2 - 3d + 1$

C $h^2 - 2h - 1$ D $r^2 + r + 1$

19. A $x^2 + 4x + 5$ B $g^2 - 9$

C $y^2 - 6y + 7$ D $m^2 - 8m + 12$

In 20–25, an expression is given. Find a value of *c* for which the expression is factorable over the integers.

20. $n^2 + 2n + c$

_____

21. $t^2 + 3t + c$

_____

22. $n^2 - 2n + c$

_____

23. $t^2 - 8t + c$

_____

24. $n^2 - 5n + c$

_____

25. $t^2 - 9t + c$

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